ABSTRACT

Title of Dissertation:	MEASURING A WORLD IN CRISIS: A NEW MODEL OF REPUTATION REPAIR
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Reputation repair is a paradigm within public relations and crisis communication. The reputation repair paradigm is currently focused on the symbolic strategies organizations use to repair their reputations in the aftermath of a crisis. This dissertation proposes significant revisions to the reputation repair paradigm and builds a series of scale measures and a revised model of reputation repair to achieve this goal.

Using moral foundations theory, situational crisis communication theory (SCCT), image repair theory, and input from 20 participants with expertise in public relations, this dissertation designs new measures for instructing information, adjusting information, reputation management messages, offensiveness of a crisis, and perceived virtuousness that buffers against reputational harms posed by crisis. This dissertation then refines and validates these measures with a pilot test with 797 participants recruited from mTurk. Finally, it concludes with an experiment testing these measures in a crisis situation operationalized as a potentially deadly fire in a building. The experiment used 1,000 participants recruited from mTurk in a 2 (crisis

types: rumor or organizational misdeed) x 2 (offensiveness: high or low) x 2 (instructing information: yes or no) x 2 (adjusting information: yes or no) x 2 (crisis response: denial or rebuilding) factorial design to test the effect of SCCT's matching construct of response strategies and the proposed revised model of reputation repair that explains how messages, offensiveness of a crisis, and perceived virtuousness impact post-crisis reputation.

This dissertation finds that matching strategies according to SCCT have a very small effect ($\acute{\eta}^2$ = .005) on post crisis reputation while reputation management messages overall have a very strong structural effect on post crisis reputation (.814). Further, it finds that the revised model of reputation repair explains how messages, perceived offensiveness, virtuousness, and post-crisis reputation interrelate and that the revised model changes slightly under different situations. Implications for theory and practitioners are discussed.

MEASURING A WORLD IN CRISIS: A NEW MODEL OF REPUTATION REPAIR

by

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Dissertation submitted to the Faculty of the Graduate School of the
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Dedication

For my father, my wife, and my son. My father because he gave up dreams of a Ph.D. to provide for me. My wife because she has given countless hours to help me through this process. My son because he is the reason I work.

Acknowledgements

In the course of deciding where to study for a Ph.D. five years ago, I attended a major academic conference to meet representatives from major programs available. I am so glad I did. It only took about three minutes talking with Dr. Brooke Fisher Liu to know that she was the person I wanted to study with. I am grateful for that chance meeting and for all her help in the years since then. Brooke has made a major imprint on me and on this work. Her willingness to talk through ideas, give honest feedback, and ask the questions I needed to answer have made this work possible. I cannot thank her enough.

Once I arrived at Maryland, I met Drs. Elizabeth Toth, Erich Sommerfeldt, Anita Atwell Seate, and Gregory Hancock. Each has contributed mightily to this project. Elizabeth and Erich gave a great perspective on the crisis literature from the public relations perspective and each helped me with projects that led to this work. Anita used her social scientist perspective to help me wrap my mind around the model of reputation repair (no small feat given that much of the crisis literature misunderstands it) and wisely suggested the use of QCA as a supplement to my other methods. Dr. Gregory Hancock spent hours, in his classroom and later in his office, helping me grasp and then use the complex statistical methods contained in this work. Without Greg, I would not have been able to learn statistics at all, let alone apply them in the manner presented here.

Finally, I owe a great debt of gratitude to my dear wife who has taken this wild ride across the country with me along with the family and friends who have supported and encouraged us throughout this process.

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List of Abbreviations

CFA - Confirmatory factor analysis
csQCA - Crisp set qualitative comparative analysis
EFA - Exploratory factor analysis
fsQCA - Fuzzy-set qualitative comparative analysis
HIT - Human intelligence task
mTurk - Amazon's Mechanical Turk
ORP - Organization reputation scale
QCA - Qualitative comparative analysis
SCCT - Situational crisis communication theory

Chapter 1: Revising the Paradigm of Reputation Repair

We live in a world that is increasingly driven by crisis. Organizations of all shapes and sizes face crises that threaten their reputations and operations. In the year 2017 alone, a viral video of police officers violently removing a paying passenger from a United Airlines flight caused the airline to lose $250 million in market value (Kottasova, 2017). Adidas apologized for sending out a mass email congratulating people that "survived the Boston Marathon!" (Torossian, 2017, para. 10). Michael Flynn was fired as National Security Advisor to President Trump after less than a month of service over lies told to the Vice President and the potential he could be blackmailed by a foreign power (Haberman, Rosenberg, Apuzzo, & Thrush, 2017). Pepsi was forced to apologize for an insensitive advertisement about protests and police brutality (Torossian, 2017). The Secretary of Health and Human Services resigned after allegations of improper use of taxpayer funds (Baker, Thrush, & Haberman, 2017). A host of celebrities, political figures, and journalists were accused of sexual harassment and sexual assault (Criss, 2017; Torossian, 2017). Spain faced a secession crisis with Catalonia (Minder & Kingsley, 2017); and countless other issues threatened reputations and operations of organizations around the world. These are just a few of the highest-profile crises that occurred around the world in one year. A crisis is "a sudden and unexpected event that threatens to disrupt an organization's operations and poses both a financial and a reputational threat" (Coombs, 2007, pg. 164). This dissertation is about understanding harms that crises cause to organizations' reputations.

Current research has studied this topic extensively (e.g., Benoit, 1995, Coombs & Holladay, 2002, Ma & Zhan, 2016). Indeed, there is a whole paradigm of reputation repair, but this paradigm is struggling. Therefore, this dissertation proposes major revisions to the existing paradigm of reputation repair in order to allow for future research that will increase understanding of how crises impact organizational reputation. This chapter explains the concept of paradigms, the state of the reputation repair paradigm, why that paradigm is struggling, and how this dissertation will seek to improve the paradigm.

1.1 Paradigms

Kuhn outlined how scientific revolutions occur in *The Structure of Scientific Revolutions* (2012). While textbooks tend to treat the growth of science as a simple linear progression, Kuhn's (2012) conception of science is that it is not linear. Rather, science goes through something more akin to boom and bust cycles of growth from paradigm to paradigm. A paradigm is similar to a dominant culture within science. A paradigm exists when a scientific achievement draws a group of adherents to follow it and leaves many problems that they can attempt to solve. A paradigm is a system of shared theories and assumptions among scientists who, as a result of using the same assumptions to apply the same theories, ask similar questions. The process of answering these questions within a paradigm is called normal science. Thus, a paradigm creates the opportunity for normal science by helping scientists prioritize the observations they should document, predict, and analyze. Kuhn (2012) describes scientists who fall within a paradigm as solving puzzles. These are not huge discoveries, but slow and steady progress through normal science. The presence of a

paradigm creates a profession or a discipline, which then creates resources such as journals, societies, and courses to support this science. The presence of these resources has "usually been associated with a group's first reception of a single paradigm" (Kuhn, 2012, p. 19).

However, as anyone who has ever heard the name Isaac Newton knows, science does not stay in one paradigm in perpetuity. Rather, just as Newton's laws of motion and gravity changed how other scientists viewed the world around them and the questions they studied, all scientific paradigms are supplanted through revolutions. Change starts when an anomaly appears in research. An anomaly is something that existing assumptions and theories cannot explain. The presence of an anomaly creates a breakdown in the pattern of normal science, which is the key element of the first stage of revolution – a crisis. It is important to distinguish crisis in Kuhn's (2012) work from the way this research will define and study crisis. Kuhn (2012) defines crisis as a situation in which multiple ideas are considered because observations no longer fit theoretical assumptions. The ensuing breakdown causes trouble in the scientific community. Ad hoc explanations or generalizations may occur to justify this discrepancy and hide the fact that things are not working. Believers in the paradigm may critique or dismiss the methods and findings of scholars who identify discrepancies. Eventually Kuhn's (2012) crisis is either resolved by acceptance of the existing paradigm or the emergence of a new paradigm (Kuhn, 2012).

1.2 The Reputation Repair Paradigm

Public relations is "the management function that establishes and maintains mutually beneficial relationships between organizations and the publics on whom its success or failure depends" (Cutlip, Center, & Broom, 2000, p. 6). Publics are a group of people who face a problem, recognize it as a problem, and organize to do something about it (Grunig & Repper, 1992). Some crisis literature refers to stakeholders, while other crisis literature refers to publics. Stakeholders are people who are influenced by or can influence the achievement of an organization's objectives (Rawlins, 2006). Accordingly, publics are a subset of stakeholders that organize to address specific concerns. This dissertation will use the broader term stakeholders as it includes publics. Stakeholders sometimes lose faith in an organization as a result of a crisis, which is why the reputation repair paradigm studies which crisis response strategies can repair damaged reputations.

Reputation repair has established itself as a paradigm within public relations and crisis communication (Toth, 2010). Kuhn (2012) argues that a paradigm is present when it draws many adherents *and* leaves many problems to solve. Both are manifestly the case today regarding reputation repair. There are large numbers of studies on the subject of reputation repair from many different scholars (Ha & Riffe, 2015; Liu & Fraustino, 2014; Ma & Zhan, 2016). Indeed, reputation repair in the aftermath of a crisis is the dominant force in crisis communication scholarship (Liu & Fraustino, 2014; Jin, Pang, & Cameron, 2012). This paradigm focuses intently on strategy of post crisis messages in improving organizational reputation. Response strategy (such as apology or denial) is prioritized in the paradigm and is the subject of

the paradigm's two main theories, image repair and situational crisis communication theory (SCCT) (Benoit, 1995, 1997; Coombs, 2006; Coombs & Holladay, 2002). The dominant theory of this paradigm is SCCT, which is designed to help managers choose the ideal response strategy for individual crisis situations (Ha & Riffe, 2015; Jin, Pang, & Cameron, 2012; Liu & Fraustino, 2014; Ma & Zhan, 2016).

SCCT has two key constructs. First, SCCT's matching construct situationally prescribes organizational response strategies following different crisis situations (Coombs & Holladay, 2002). SCCT creates postures of crisis response that are matched to specific crisis situations (Coombs, 2015). Responses that are prescribed are called matched and those that are not prescribed are mismatched (Coombs, 2007). For example, in the case of a crisis where an organization bears a large amount of responsibility, a denial would be a mismatched response, while an apology would be a matched response. The matching construct is based upon how responsible stakeholders think an organization is for a crisis, and how much responsibility it publicly takes for a crisis with a crisis response (Coombs, 2006, 2015; Coombs & Holladay, 2002). SCCT predicts that following the matching construct will result in improved outcomes for an organization in a manner explained by the second construct, the model of reputation repair (Coombs, 2007, 2010). This model suggests that attributed responsibility partially mediates the relationship between crisis response strategies and organizational reputation. The implication of these two constructs combined is that, all else being equal, an organization will have a better reputation following a crisis if it uses a matched response rather than a mismatched response (Coombs, 2007, 2015). Several experiments have tested the matching

construct with mixed results (e.g., Claeys & Cauberghe, 2014; Claeys, Cauberghe, & Vyncke, 2010; Kim & Sung, 2014; Ma & Zhan, 2016; Fuoli, van de Weijer, & Paradis, 2017).

1.3 The Paradigm is Struggling

Crisis communication response research needs a change. The first step in any paradigm change is an anomaly (Kuhn, 2012). This anomaly usually is more widespread than just one observation, but it reflects a problem with the underlying theoretical assumptions that drive the paradigm. In other words, a paradigm crisis is ready when normal science is disrupted because results of studies are not conforming with theory's predictions. At least three distinct anomalies exist in the existing reputation repair literature.

The first anomaly is that most reputation repair literature is not actually testing the model of reputation repair from SCCT (Coombs, 2007, 2010). Rather, they test attributed responsibility, reputation, or other dependent variables without examining their relationship to one another (Ma & Zhan, 2016). This approach obscures the impact of attributed responsibility and prevents researchers from understanding how different aspects of crisis response might impact attributed responsibility and reputation (O'Keefe, 2003).

The second anomaly in the reputation repair paradigm is that experiments testing SCCT are not consistently confirming the theory. Rather, there are many conflicted results, and the meta-analysis of the theory (Ma & Zhan, 2016) found the theory's prescribed response options improved reputation outcomes only among student samples. This is a consistent conflict in the crisis communication literature.

The final anomaly is probably the most concerning. The meta-analysis indicates that the effect size of reputation management messages is very small, $r = .23$ 95% CI = (.17, .29) (Ma & Zhan, 2016). When presented with this result, even the founder of SCCT conceded that these messages would never have a large effect (Coombs, 2016). In a practice-oriented field like crisis communication, the excessive emphasis on an area where very small effects are present is problematic. Rather, the field needs to seek out a better direction with revisions to the existing paradigm.

1.4 Overview of Dissertation

This dissertation examines the paradigm of reputation repair (Chapter 1) that is currently dominated by SCCT and explains it has two components: a matching construct and a model of reputation repair (Chapter 2). Using a literature review that finds moral foundations theory as a model for measuring crisis offensiveness (Haidt & Joseph, 2004), an initial pilot of interviews with 20 people with expertise in public relations and a second pilot experiment with 797 participants recruited from Amazon's Mechnical Turk (mTurk), this dissertation builds new measures to test the model of reputation repair (Chapter 3). The second pilot found that the model of reputation repair was a good fit; however, it also found a need for new measures. The second pilot included a fuzzy-set Qualitative Comparative Analysis (fsQCA) to explore what elements of a crisis create a reputation threat. fsQCA is a set-based method of analyzing data that allows researchers to establish asymmetrical causation in a non-linear method (Schneider & Wagemann, 2012). This fsQCA and the scale development each independently found new elements relevant to the model of reputation repair and so this dissertation proposes a new revised model of reputation

repair to incorporate the new elements (Chapter 4). Using an experiment with 1,000 participants recruited from mTurk, this dissertation then tests the revised model of reputation repair and tests the matching construct of SCCT (Chapter 5). This dissertation finds that the revised model of reputation repair allows for organizational crisis responses to explain a significant portion of post-crisis organizational reputation (Chapter 6).

Specifically, this dissertation finds that crisis responses can have a very large impact on reputation, but that the matching construct within SCCT does very little to explain this effect. Rather, the newly created measures in this dissertation explain the effect very well. This dissertation therefore concludes by suggesting that researchers move away from the matching construct and toward other research into what makes crisis response strategies effective. Moving away from the matching construct would be a significant change in the paradigm.

1.5 Time for Change

This dissertation seeks to address significant anomalies that exist in the current paradigm that may lead to significant revisions of the paradigm itself. Kuhn (2012) notes the role that new instruments may play in this process. For instance, increasingly precise instruments make it possible to tell whether observations actually conform with the paradigm's predictions and assumptions. Further, the development of a new paradigm requires instruments that allow for its key concepts to be observed and measured.

The five new measures created by this research can significantly improve normal science within the reputation repair paradigm. These measures do far more to

explain reputation in the aftermath of a crisis than the matching construct within SCCT. For instance, these measures are tools for researchers to test how offensive a crisis is (Benoit, 1995; Benoit & Dorries, 1996), mitigating virtuousness that buffers the effect of a crisis (Richards, Wilson, Boyle, & Mower, 2017), the base crisis responses that protect people during and after a crisis (Kim & Sung, 2014; Park, 2017), and the reputation management messages given in the aftermath of a crisis (Coombs, 2006, 2015). Each of these topics builds upon existing reputation repair research, which is discussed in chapter 2.

Chapter 2: Literature Review of SCCT

We live in a world where crisis situations threaten the reputation and operations of organizations of all shapes and sizes (Benoit, 1995; Coombs, 2007). An organization facing a crisis situation often needs to protect or repair its reputation from damage in order to continue operating or retain customers (Benoit, 1995, 1997; Coombs, 2006, 2015). The paradigm of reputation repair within crisis communication and public relations provides managerial guidance regarding the strategies organizations can use to repair their reputations in the aftermath of crisis after taking care of stakeholders' needs (Benoit, 1995, 1997; Coombs, 2015; Ha & Riffe, 2015; Ma & Zhan, 2016).

Situational Crisis Communication Theory (SCCT) is the dominant theory in the crisis communication reputation repair paradigm (Ha & Riffe, 2015; Jin, Pang, & Cameron, 2012; Liu & Fraustino, 2014; Ma & Zhan, 2016). While many theories of crisis communication exist, only SCCT and image repair focus on a variety of reputation repair strategies (Liu & Fraustino, 2014). This dissertation focuses on SCCT (Coombs, 2015), though it also incorporates elements of image repair (Benoit, 1995, 1997; Liu & Fraustino, 2014) and introduces moral foundations theory to crisis literature (Haidt & Joseph, 2004). SCCT is focused on improving the reputation of organizations among stakeholders in the aftermath of a crisis. A stakeholder is a person or group who can affect or is affected by an organization's objectives (Freeman, 1984; Rawlins, 2006). SCCT makes two distinct claims that are critical to understanding reputation crisis communication from a managerial standpoint. First, it suggests a method of choosing crisis responses that will be called the matching

construct (Coombs, 2006, 2015; Coombs & Holladay, 2002). Second, it offers a model of how reputation repair operates so that the matching construct could be tested (Coombs, 2007, 2010). This model is never named in Coombs' work so this dissertation will name it the model of reputation repair. This literature review explores both the matching construct and the model of reputation repair in its review of the history of SCCT. Further, it explains how moral foundations theory can be used to enhance the existing model. To do so, this review discusses the three phases of SCCT, which the researcher calls origins, emergence, and moving forward. First, this literature review discusses SCCT's origins, including early work by Coombs and Holladay (e.g., 1996), attribution theory (Weiner, 1985), and image repair theory (Benoit, 1995, 1997) until SCCT was formally introduced (Coombs & Holladay, 2002). It also introduces moral foundations theory to crisis literature (Haidt & Joseph, 2004). Second, the literature review examines SCCT's emergence into the primary theory of reputation repair in public relations and major revisions taken by the theory (e.g., Coombs, 2007, 2015). Finally, the literature review discusses criticisms of the theory and potential revisions in moving forward.

2.1 Origins

In examining the much-discussed 1982 Tylenol recall case (e.g., Marra, 1998; Sellnow, Ulmer, & Snider, 1998; Snyder, 1983), Benson (1988) challenged crisis communication scholars to go deeper than just recommending apologies as a universal crisis remedy. His challenge encouraged researchers to find new crisis response strategies and implied they should develop some mechanism for choosing which strategies are most effective in different situations (Coombs & Holladay,

1996). Many researchers took up this call and sought to develop new crisis communication response strategies that organizations could use to improve their images (e.g., Allen & Caillouet, 1994; Benoit, 1995, 1997; Coombs, 1995; Sellnow et al., 1998). In developing these response strategies, scholars relied primarily upon one of three theoretical approaches: the institutional approach, the rhetorical approach, and the attribution approach. Each will be discussed in turn.

2.1.1 Institutional Approach

The institutional approach used literature from the management world to emphasize organizational legitimacy (e.g., Allen & Caillouet, 1994; Ashforth & Gibbs, 1990; Coombs & Holladay, 1996; Richardson, 1985). In this school of thought, the primary purpose of crisis communication is to maintain or protect an organization's legitimacy in the minds of its stakeholders (Richardson, 1985). In this view, an organization obtains legitimacy by meeting the expectations from society on how it should behave. Expectations for how organizations should behave come from "market, normative, legal, or political forces" (Ashforth & Gibbs, 1990, p. 178). For example, most organizations are expected to responsibly dispose of waste. This expectation is normative and, in many cases, codified into laws. If an organization were to violate these expectations by contaminating a lake with radioactive waste, it would lose legitimacy in the minds of stakeholders who learned about the action. Stakeholders could then use legal and market forces to punish the organization for its poor behavior.

Organizations can establish and maintain legitimacy through substantive management or symbolic management (Ashforth & Gibbs, 1990; Richardson, 1985).

Substantive management changes the way an organization behaves. It fulfills the expectations that organizations have from stakeholders through processes and procedures. In the contamination example, substantive management could include a policy of disposing of radioactive waste responsibly. Symbolic management is composed of states or actions taken to make or change how key stakeholders interpret the organization (Ashforth & Gibbs, 1990; Richardson, 1985). In the contamination example, symbolic management could include communicating that the organization responsibly disposes of waste. Crisis communication is generally concerned with this symbolic management and attempts to increase, maintain, or defend legitimacy in the wake of a crisis (Allen & Caillouet, 1994; Ashforth & Gibbs, 1990). In a situation in which an organization is threatened, this can include denial, concealment, apology, excuse, justification, or giving account of what occurred (Ashforth & Gibbs, 1990; Elsbach & Sutton, 1992).

2.1.2 Rhetorical Approach

The rhetorical approach examined the components of persuasive attack and defense (Benoit & Dorries, 1996; Ware & Linkugel, 1973). It began with apologia (Ware & Linkugel, 1973) and eventually grew into image repair theory (Benoit, 1995, 1997).

Apologia is the genre of rhetoric that studies a speech of defense in which an individual responds to criticism (Ware & Linkugel, 1973). At its core, apologia is a response to an attack, which is called a kategoria (Hearit, 1996; Hearit & Hearit, 2011; Ryan, 1982). Kategoria and apologia are a matched set of allegation and response (Ryan, 1982). Apologia and kategoria each contain different components,

including denial, bolstering, differentiation, and transcendence (Abelson, 1959). These components combine to create response postures (Ware & Linkugel, 1973). Apologia has often been studied in the context of politicians and corporations, explaining how people and organization's respond when they are attacked (e.g., Cels, 2015; Hearit, 1999).

Building upon apologia, Benoit (1995, 1997) created image repair theory. This theory takes a strategic look at what organizations and people can do to respond to crises. The theory assumes that the most important feature of a crisis response is stakeholders' perceptions because these perceptions can become the reputation problems caused by the crisis (Benoit, 1995, 1997; Blaney, Benoit, & Brazeal, 2002). Image repair theory argues that a crisis can only be present if responsibility for an act and offensiveness of the act are simultaneously present (Benoit 1995, 1997; Benoit & Dorries, 1996). This crisis conceptualization accounts for situations in which some stakeholders might not change their opinion of an organization during a crisis because they do not perceive an act as offensive (e.g., a leader that makes a statement which offends some will not be perceived as a reputation threat among those who agree with the statement). This crisis conceptualization also provides for the potential to increase or decrease the reputation threat of a crisis by changing the perceived offensiveness of an act (Benoit, 1995, 1997; Benoit & Dorries, 1996). Image repair theory was initially called image restoration, but its name was changed because images cannot always be fully restored. Rather, sometimes they can only hope to be repaired (Benoit, 2000).

Figure 2.1 Image Repair Strategies (Benoit, 1997)

Strategy	Example Statement
Denial	
Simple Denial	"I didn't do it."
Shift the Blame	"She did it."
Evasion of Responsibility	
Provocation	"He started it."
Defeasibility	"Nobody told me."
Accident	"I didn't mean to."
Good Intentions	"I was trying to do the right thing."
Reducing Offensiveness of Event	
Bolstering	"Think about all the good I did."
Minimization	"It's not a big deal."
Differentiation	"It wasn't like that."
Transcendence	"This allows us to do something bigger."
Attack Accuser	"It's your fault."
Compensation	"Let me pay for that damage."
Corrective Action	"I promise to take care of this."
Mortification	"I am horrified this happened."

In this school of thought, the primary purpose of crisis communication is to reduce perceived responsibility for actions or the offensiveness of those actions that led to the crisis (Benoit, 1995, 1997). Benoit (1995, 1997) created five classes of crisis response strategies that have been added to over time. The classes of responses are denial, evasion of responsibility, reducing the offensiveness of the event, corrective action, and mortification (see Figure 2.1). The first three classes have a number of sub-strategies, while corrective action and mortification classes stand alone as their own strategies. In image repair theory, the elimination of either responsibility or offensiveness is enough to eliminate any reputation threat to an organization. Image repair theory is most commonly studied in the context of political image repair and corporate crises with qualitative methods (Benoit, 2006). The theory

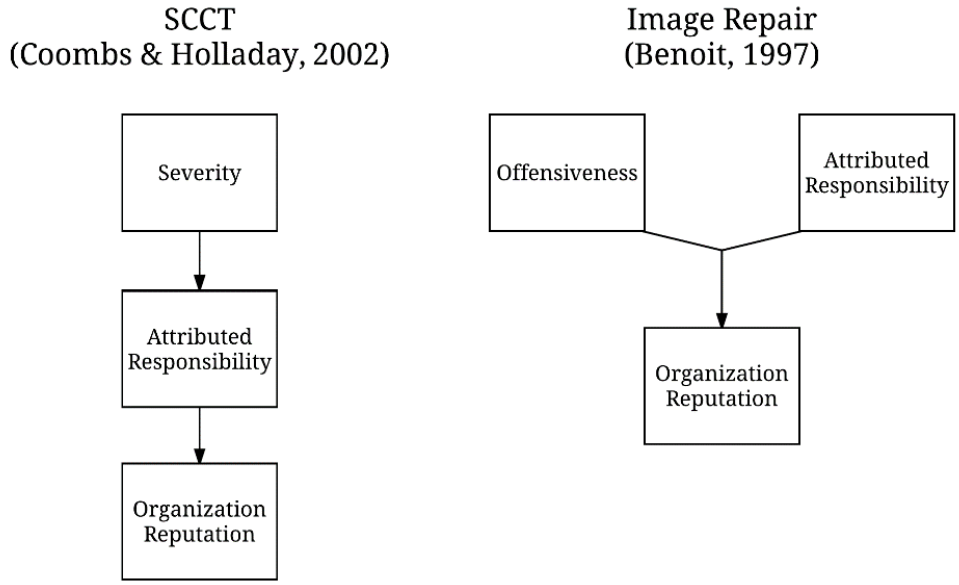
is still frequently studied today; however, it does not prescribe a mechanism for choosing the ideal response an organization can take in the face of a crisis to maintain its reputation or acknowledge the importance protecting stakeholders before issuing a reputation response (e.g., Benoit, 1997; Benoit, 2006; Blaney et al., 2002; Hambrick, Frederick, & Sanderson, 2015; Len-Rios et al., 2015).

2.1.3 Attribution Approach

The attribution approach leveraged literature from psychology to focus on responsibility for a crisis (e.g., Weiner, 1985; Weiner, Amirkhan, Folkes, & Verette, 1987; Weiner, Perry, & Magnusson, 1988; Weiner, 1995). This research established that people search for reasons why bad things happen in the world around them. Psychology researchers had already studied how individuals assign guilt or blame for negative occurrences. One group of psychological researchers took the next step and demonstrated that this attribution of responsibility could apply to an organization (e.g., Kent & Martinko, 1995; Matinko, 1995; Weiner, 1985, 1995).

In the communication discipline, Coombs and Holladay (1996) began researching how notions of attribution predict how organizations should respond to crises. Their early research was built upon a combination of rhetorical ideas from apologia (Ware & Linkugel, 1973), image repair (Benoit, 1995), and the institutional approach (Allen & Caillouet; Ashforth & Gibbs, 1990). Coombs (1995, 1998, 1999; Coombs & Holladay, 1996) named this the symbolic approach, a clear reference to the institutional literature (Allen & Caillouet, 1994; Ashforth & Gibbs, 1990), and argued that responsibility for an act is a predictor of how an organization should use its symbolic resources to counter a crisis (Coombs, 1995, 1998; Coombs & Holladay,

Figure 2.2 Models of SCCT and Image Repair



1996). In this school of thought, the primary purpose of crisis communication is to mitigate perceptions of organization's responsibility for causing the crisis (Coombs, 1995; Coombs & Holladay, 1996, 2001). These researchers began testing how different response strategies might change attribution (Coombs, 1999).

2.1.4 Intersection of Approaches

These approaches are not mutually exclusive, though each theory suggests a slightly different model of how crisis communication impacts reputation. In addition, the response strategies that were developed overlap in significant ways that scholars acknowledge. Indeed, some of these scholars relied upon the work of other traditions in developing their own typologies. For instance, both Coombs and Holladay (1996) and Benoit (1997) cite Allen and Caillouet (1994) in developing their own typologies. In addition, some of the traditions have similar components. For instance, both attribution and image repair focus on attributed responsibility; however, image repair also adds a second component called offensiveness. A similar concept called severity

has appeared in early conceptions of the attribution approach (e.g., Coombs, 2006; Coombs & Holladay, 2002); however, the earliest study of SCCT conceives of severity as an aggravating factor (Coombs & Holladay, 2002) and not a necessary nor sufficient condition, like offensiveness in image repair (Benoit, 1995, 1997). Figure 2.2 compares how Coombs and Holladay (2002) and Benoit (1995) theorize crisis communication response strategies. This dissertation seeks to understand the concept of offensiveness in a crisis situation. In particular, it seeks to know if offensiveness is necessary for a crisis to exist (Benoit, 1995, 1997; Benoit & Dorries, 1996) or if it is simply an aggravating factor that builds upon attributed responsibility (Coombs & Holladay, 1996, 2002). Therefore:

H1a: Attributed responsibility for a crisis is a necessary condition for an organizational reputation threat to exist as a result of a crisis.

H1b: Offensiveness of a crisis is a necessary condition for an organizational reputation threat to exist as a result of a crisis.

H1c: The combination of attributed responsibility for a crisis and offensiveness of a crisis is a necessary condition for an organizational reputation threat to exist as a result of a crisis.

H1d: Attributed responsibility for a crisis is a sufficient condition for an organizational reputation threat to exist as a result of a crisis.

H1e: Offensiveness of a crisis is a sufficient condition for an organizational reputation threat to exist as a result of a crisis.

H1f: The combination of attributed responsibility for a crisis and offensiveness of a crisis is a sufficient condition for an organizational reputation threat to exist as a result of a crisis.

2.1.5 Moral Foundations Theory and Offensiveness

While measures of attribution of responsibility are plentiful and have been widely developed to be used in crisis communication literature (Coombs & Holladay, 2002; Ma & Zhan, 2016), crisis communication literature has not yet incorporated measures of offensiveness. Indeed, research generally picks situations known to be offensive and then examines attributed responsibility for the event. For instance, Coombs and Holladay (2002) created their initial crisis clusters by creating 13 different crisis situations that invoked issues generally believed to be offensive in some way (e.g., racism, sexual harassment, food contaminated with E. coli). However, simply assuming offensiveness prevents scholars from examining how variations in perceived offensiveness might alter reputation and attribution of crisis responsibility. In other words, treating this as a constant, when in the real world there is variability, has likely reduced the variability to be accounted for in the models. Further, assuming offensiveness prevents scholars from segmenting stakeholders based upon variations in perceived offensiveness. In contrast, understanding perceived offensiveness may empower scholars to segment audiences and move beyond a general audience approach, thereby acknowledging differences that may dictate unique reactions to crisis situations. This ability to segment stakeholders will be a boon for public relations scholars who seek to understand how different publics come together and interact with organizations.

As crisis research moves beyond cases that assume every stakeholder agrees an act is offensive to more difficult (and more realistic) crises that provoke different reactions depending upon the unique value systems of stakeholders, an understanding of the moral foundations of stakeholders will be necessary to predict outcomes. For example, when then-Senator Barack Obama told donors in San Francisco that small-town Pennsylvanians cling to guns, religion, and xenophobia, the message was surely perceived as acceptable to many in San Francisco but offensive to many in Pennsylvania (Smith, 2008). Similar distinctions could be seen with other political statements that have caused crises for candidates, including Gov. Mitt Romney's comment deriding "47%" of Americans who he said supported his opponent and could not be convinced to "take personal responsibility and care for their lives" (Christofferson, 2012, para. 5). Recently, Sec. Hillary Clinton made a similar comment when she said half of her opponent's supporters belonged in a "basket of deplorables" that was irredeemable (Reilly, 2016, para. 1). In all cases, these statements were universally attributed to the politicians who gave them. However, different stakeholders reacted to them in different ways. The speakers seemed aware of this because they only made these comments in ostensibly private settings where the larger public was not an intended audience. Indeed, the statements were not attacked in the venues where they were delivered. The statements were only seen as offensive when stakeholders outside the room learned of them. Yet, the current crisis communication literature focused on SCCT's attribution-centered approach is inadequate to explain why stakeholders react differently to the same crises. Fortunately, moral psychologists have been grappling with these issues for years and

have recently developed moral foundations theory to explain how different people perceive different situations as more or less offensive (Graham et al., 2011; Graham, Haidt, & Nosek, 2009).

Moral foundations theory suggests there are five distinct foundations of morality that individuals use to assess moral dilemmas and political issues (Graham et al., 2011). The five foundations are care/harm, fairness/cheating, loyalty/betrayal, authority/subversion, and sanctity/degradation (Graham et al., 2013). Care/harm focuses on alleviating suffering and providing care for others. Fairness/cheating describes the propensity to be a good partner for exchange relationships. Loyalty/betrayal acknowledges that individuals who support their tribe are perceived as more favorable within the tribe. Authority/subversion reflects attitudes toward whether individuals should respect hierarchical authority or not. Sanctity/degradation notes the value of disgust for or dislike of certain behaviors that do not violate any of the other foundations. This disgust or dislike is often derived from religious or other social norms (Graham et al., 2013).

Care/harm and fairness/cheating are derived largely from traditional moral psychology and sometimes called individual foundations because they are focused on the effect of an action on an individual (Graham et al., 2011; Niemi & Young, 2016). In contrast, a key development in moral psychology is to acknowledge the three other foundations of loyalty/betrayal, authority/subversion, and sanctity/degradation (Graham et al., 2009). These foundations are sometimes called binding foundations because they are built upon principles that bind communities together (Graham et al., 2011). While violations of the binding foundations do not directly harm any person,

they do weaken or undermine groups. Consequently, such actions are perceived as wrong among certain members of society, though not all (Graham et al., 2009). Recent research has found that these moral foundations and different degrees to which they are accepted explain political differences above and beyond demographic variables, including political orientation (Koleva et al., 2012). Research has found that liberals and conservatives have different degrees of these foundations and that this helps to explain why they disagree on key political issues (Graham et al., 2009, 2011, 2013; Koleva et al., 2012).

Graham et al. (2009) report four studies that illustrate this point. First, they developed three statements for each foundation designed to assess how relevant participants found each foundation to making their own personal moral choices. They surveyed 1,613 volunteers with these questions along with demographic questions. They found that political conservatives used all five moral foundations in making a decision, while political liberals only used the care/harm and fairness/cheating foundations in making a decision. This effect became stronger with an increase in conservativism. Extreme conservatives gave all five foundations similar weight in making a decision, while the three binding foundations decreased in relevance as conservatism decreased. In the second study, the authors replicated the moral relevance questions with 2,212 volunteers but also included three new questions for each foundation on moral judgements, for a total of 30 questions that are now called the Moral Foundations Questionairre (MFQ). In the third study, the authors created a series of violations of the foundations (e.g., for care/harm, kick a dog in the head really hard) and asked participants how little money they would take to commit the

acts. The offer ranged from $0 - $1,000,000 with an option to say they would not do the act for any money. Again, conservatives and liberals scored differently. Conservatives were more likely to treat each of the five moral foundations closer equally than liberals, who were more likely to treat the individual foundations differently from the binding foundations. Finally, in a fourth study, the authors conducted a content analysis of sermons in 69 liberal (Unitarian) and 34 conservative (Baptist) Christian churches in the United States. Terms suggesting the care/harm and fairness/cheating foundations appeared in the liberal sermons more frequently than in the conservative sermons, and the other foundations were more represented in the conservative sermons.

In building upon this research, Graham et al. (2011) conducted another study to examine, refine, and validate the MFQ. They established a latent-variable model with five distinct foundations that were correlated with one another. Each foundation was built from six separate items from MFQ that are included here as Figure 2.3.

Using the MFQ, Koleva et al. (2012) conducted two studies to examine attitudes toward 20 culture war issues in America ranging from same sex marriage to flag burning. Their goal was to find if moral foundations helped to predict attitudes more than simple political ideology. Using multiple regression, their first study examined 13 issues with 10,222 volunteer participants who signed up online. The moral foundations were significant predictors of attitudes, above and beyond age, gender, religious attendance, political interest, and political ideology. This was especially true for sanctity/degradation, which had the greatest effect size on nine different issues ranging from same sex relationships to gambling. In a second study,

Figure 2.3 Moral Foundations Questionnaire (Graham et al., 2011)

Part 1: Moral Relevance

When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?

Harm:

- Whether or not someone suffered emotionally.
- Whether or not someone care for someone weak or vulnerable.
- Whether or not someone was cruel.

Fairness:

- Whether or not some people were treated differently from others.
- Whether or not someone acted unfairly.
- Whether or not someone was denied his or her rights.

Loyalty:

- Whether or not someone's actions showed love for his or her country.
- Whether or not someone did something to betray his or her group.
- Whether or not someone showed a lack of loyalty.

Authority:

- Whether or not someone showed a lack of respect for authority.
- Whether or not someone conformed to the traditions of society.
- Whether or not an action caused chaos or disorder.

Sanctity:

- Whether or not someone violated standards of purity and decency.
- Whether or not someone did something disgusting.
- Whether or not someone acted in a way God would approve of.

Part 2: Moral Judgements

Please read the following sentences and indicate your level of agreement or disagreement.

Harm:

- Compassion for those who are suffering is the most crucial virtue.
- One of the worst things a person could do is hurt a defenseless animal.
- It can never be right to kill a human being.

Fairness:

- When the government makes laws, the number one principle should be ensuring everyone is treated fairly.
- Justice is the most important requirement for a society.
- I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.

Loyalty:

- I am proud of my country's history.
- People should be loyal to their family members, even when they have done something wrong.
- It is more important to be a team player than to express oneself.

Authority:

- Respect for authority is something all children need to learn.
- Men and women each have different roles to play in society.
- If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.

Sanctity:

- People should not do things that are disgusting, even if no one is harmed.
- I would call some acts wrong on the grounds that they are unnatural.
- Chastity is an important and valuable virtue.

they replicated the previous study with 14,517 adults using seven social issues and incorporating other scales traditionally used to assess political identity. They found that moral foundations predicted attitudes above and beyond the traditional scales. In some cases, including the traditional scales in the model actually increased the size of the effect for key moral foundations. The authors concluded that the foundations were valuable in predicting political attitudes toward political issues.

Moral foundations theory has grown and started to expand, though this is the first study to use it to examine crisis communication. Existing growth includes discussing new potential foundations such as liberty and distinguishing between types of care/harm between physical harm, emotional harm, and animal harm (Clifford, Iyengar, Cabeza, & Sinnott-Armstrong, 2015). Graham et al. (2013) provided a comprehensive review of the theory and called for it to expand into other areas, including outside of psychology. Niemi and Young (2016) even began examining how moral foundations impact how people attribute responsibility for criminal acts

Clifford et al. (2015) conducted two studies to build a series of vignettes that describe violations of the individual moral foundations to be used in future research. In their first study, the authors created a series of vignettes that clearly implicated a single moral foundation, rather than a combination of multiple foundations, and described behavior that was generally seen as wrong. To create these measures, the researchers recruited participants in three waves (n = 330, 192, 94) from a Qualtrics panel to evaluate randomly assigned vignettes and state whether each action included was morally wrong. Participants were then asked why the described action was wrong in a multiple-choice question. Each answer option provided described one of the

moral foundations. After each wave, vignettes that performed poorly were discarded or refined and the next wave of participants reviewed newly refined vignettes. In order to be retained, vignettes needed at least 60% of participants to correctly identify the moral foundation intended. In addition, researchers discarded any vignette in which 20% or more of participants identified any other moral foundation. Participants also rated the vignettes on how easy they were to understand, how easy they were to imagine, how frequently they saw similar behavior, and how strong their emotional response was to the description. Each vignette was rated by approximately 30 participants. The first study found 132 vignettes that met the above criteria. Participants described selected vignettes as morally wrong, easily comprehensible, easily imagined, experienced infrequently, and inducing a moderately strong emotional response.

Clifford et al. (2015) continued by conducting a second study to establish validity with factor analysis and outside measures including the MFQ. The researchers recruited 510 participants from a Qualtrics panel and asked them to review a randomly chosen vignette, explain whether the action described was wrong, and rate it on the MFQ and another measure of their design. This process was repeated for each of the 132 vignettes. Researchers conducted exploratory factor analysis (EFA) to establish that each vignette clearly loaded on a single moral foundation. In addition, researchers conducted a confirmatory factor analysis (CFA) and compared results to the MFQ and another measure. Of the 132 vignettes, 90 were retained because they loaded on the hypothesized foundation ($\geq .3$) did not cross-load on another foundation ($\geq .3$).

Niemi and Young (2016) used moral foundations with attribution in four studies to predict why victims are sometimes blamed for things that happen to them. In the first study, 228 people recruited on mTurk were told that four different people had experienced four different crimes, with no detail beyond calling the crimes rape, molestation, strangling, and stabbing. They found that the binding foundations predicted greater stigmatization of victim as contaminated and tainted. In contrast, individual foundations predicted greater sensitivity to victims meaning they were perceived as more hurt. In a second study, 254 people recruited on mTurk were given more detail about one of two crimes (sexual assault or robbery) and asked attribution questions. Again, the study found that binding foundations predicted an increase in victim blaming, while the foundations had no impact on attribution toward the perpetrator. A third study with 343 mTurk participants manipulated the focus of a series of vignettes about a single sexual assault to be on the victim or the perpetrator. The results found that binding moral foundations predicted more blame for victim and less blame for perpetrator, while individual moral foundations predicted more blame for perpetrator. The vignettes that focused on the victim, rather than the perpetrator, resulted in significantly less blame for the victim. In this study, the moral foundations reported greater effect sizes than politics, gender, or religious attendance. A fourth study sought to address a limitation in the three previous studies that participants were asked about their political ideology at the same time as the moral foundations. To do so, researchers reached out to participants in the first three studies years after the original study and compared their attitudes toward vignettes against their moral

values that was previously reported. Again, they found that moral values were predictive of attitudes toward victims of crime.

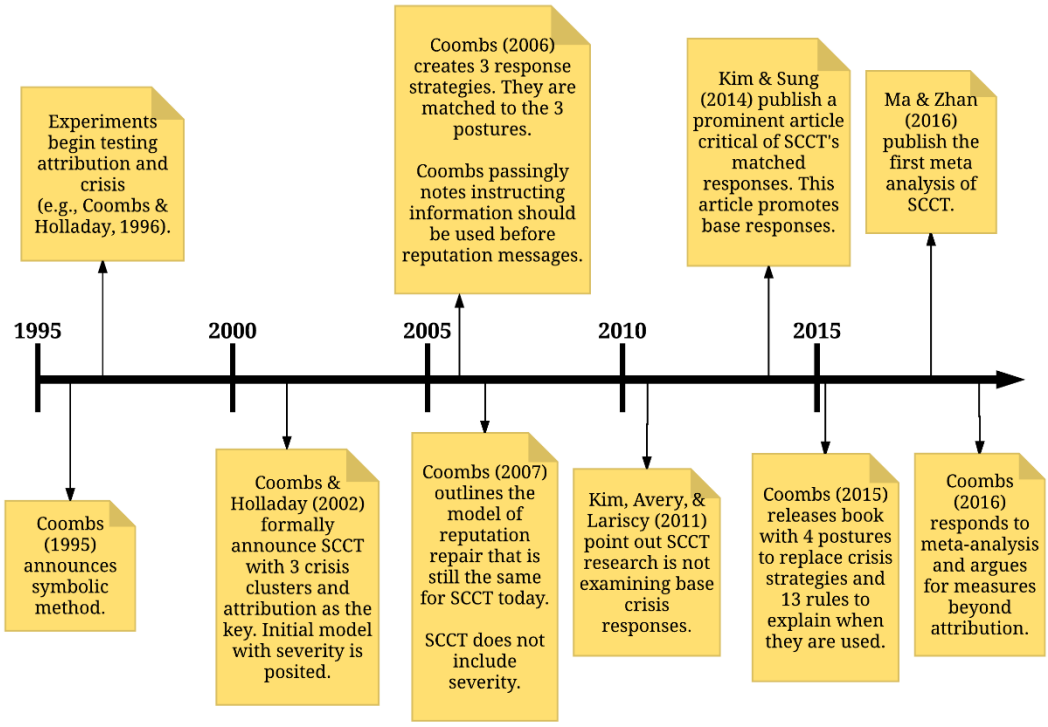
The moral foundation scholars suggest expanding the use of the theory outside of psychology (Graham et al., 2013) and have even built stimuli and scales to assist in this research (Graham et al., 2011; Clifford et al., 2015). Further, this literature review has demonstrated that crisis models should consider incorporating offensiveness. Therefore:

RQ1a: How can offensiveness of a crisis be measured in an organizational reputation context?

RQ1b: How do violations of different moral foundations impact offensiveness?

RQ1c: How do violations of different moral foundations impact reputation?

Figure 2.4 Timeline of SCCT Research



2.2 Emergence

During this phase, SCCT was formally introduced, became a dominant force in crisis communication, and underwent minor changes (Claeys & Cauberghe, 2014; Coombs, 2006; Coombs & Holladay, 2006). Numerous studies tested, extended, added moderators to, and attacked the theory from a wide array of positions. All of this work eventually culminated in revisions to the theory in Coombs' (2015) book on crisis communication. This section will review how SCCT grew and the revisions it took (see Figure 2.4).

In 2002, Coombs and Holladay formally named their theory SCCT based upon the attribution literature and their work on the symbolic approach. They solidified the notion that attribution is the key factor in understanding crisis response strategies, using existing measures from attribution literature (Griffin, Babin, & Darden, 1992; McAuley, Duncan, & Russell, 1992) as well as a scale of organization reputation they had previously developed (Coombs & Holladay, 1996) to examine whether there was any distinction between personal control over the crisis and attributed blame for the crisis. Using a sample of 130 undergraduate students at two different universities and factor analysis, they found that personal control and attributed blame appeared to measure the same construct. In addition, they hypothesized that increased attribution of responsibility would result in decreased organization reputation. Their research confirmed this hypothesis (Coombs & Holladay, 2002). Finally, they used cluster analysis to combine 13 different crisis situations into three crisis clusters, which were labeled victim, accident, and preventable (Coombs & Holladay, 2002). A victim crisis is a crisis for which an

organization is perceived to have very little responsibility (e.g., a natural disaster). An accident crisis is a crisis for which the organization bears some responsibility for the unintended consequences of its actions (e.g., technical breakdown accidents). A preventable crisis is a crisis for which the organization is perceived to have significant responsibility for an intentional act or putting stakeholders at serious risk (e.g., organizational misdeeds) (Coombs & Holladay, 2002) (see Figure 2.5).

Figure 2.5 Crisis Types (Coombs, 2015)

Victim Crisis. Little or No Attributed Responsibility
Rumor
Workplace Violence
Natural Disasters
Accident Crisis. Low Attributed Responsibility
Challenges
Technical Error Accidents
Technical Error Product Harm
Preventable Crisis. Significant Attributed Responsibility
Human Error Accidents
Human Error Product Harm
Organizational Misdeeds

In this version of SCCT, crisis responsibility is impacted by both the organization's performance history (crisis and relationship histories), as well as the severity of the crisis. The organization's reputation is then affected by both the crisis responsibility and the crisis response strategy; however, crisis responsibility and crisis response strategy do not impact one another in this model (Coombs & Holladay, 2002).

2.2.1 Response Choice

The origins articles about the symbolic approach (e.g., Coombs & Holladay, 1996, 1998; Coombs, 1995) and the initial article positing SCCT (Coombs & Holladay, 2002) laid out a few general principles of crisis communication, namely that it was driven by attribution; however, it was far from a finished product. The goal of the theory had been to prescribe crisis communication responses, yet it had not yet

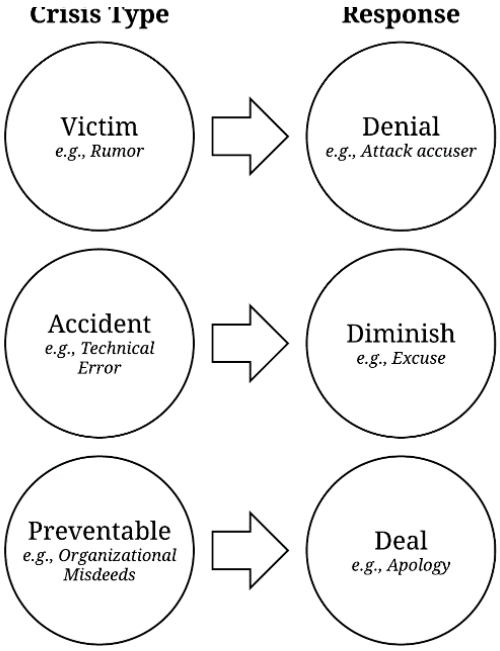
done so. The next step was to figure out how crisis communication responses would fit within a structure focused on attributed responsibility. Coombs (2006) took ten crisis response strategies drawn from existing typologies (e.g., Allen & Caillouet, 1994; Benoit, 1995) and asked undergraduate students to rate how much responsibility the response took for the crisis as well as how much help it gave to the victims of the crisis. The former reflected the attribution theory root of SCCT (Weiner, 1985) while the latter reflected the institutional root in crisis theory (Allen & Caillouet, 1994).

Figure 2.6 Crisis Response Strategies (Coombs, 2006)

Denial Strategies
Denial
Attacking the Accuser
Scapegoat
Diminishment Strategies
Excusing
Justification
Deal Strategies
Ingratiation
Concern
Compassion
Regret
Apology

Using these measures, the study combined crisis response strategies drawn from existing typologies (e.g., Allen & Caillouet, 1994; Benoit, 1995) into three clusters labeled deny, diminish, and deal. The deny cluster strategies accepted little or no responsibility for a crisis and included strategies such as deny or attack accuser. The diminish cluster strategies accepted some responsibility for the crisis, but sought to minimize it through strategies such as excuse and justification. The deal cluster strategies accepted full responsibility for the

Figure 1.7 SCCT Matching Construct (Coombs, 2006)



crisis and included strategies such as apologizing or expressing regret (see Figure 2.6). SCCT hypothesized that deny responses were ideal for victim crises in terms of reputation repair, diminish responses were ideal for accident crises, and deal responses were ideal for preventable crises (see Figure 2.7). These were called matched responses and researchers were encouraged to test the matching construct (Coombs, 2006; Coombs, 2007).

2.2.2 Measuring Reputation

Coombs and Holladay (1996) developed a scale for SCCT to measure reputation that was based upon McCroskey's (1966) character measures. The scale focuses on the subdimension of trust, which appears in most measures of reputation (Coombs, 2016). The scale is composed of ten items (e.g., "The company is basically honest"). Coombs and Holladay (1996) reported high reliability ($\alpha = .82$). Coombs (1998) used this scale as well and reported $\alpha = .92$. This scale, along with a five-item variation (e.g., Coombs & Holladay, 2006, $\alpha = .85$), is called organization reputation (ORP) and a meta-analysis of the theory found it has been used in 12 studies (Ma & Zhan, 2016). The meta-analysis of SCCT found that the scale has typically found larger effects for SCCT's matched responses, $r = .31$, 95% CI = (.23, .38), than general attitude measures of reputation, $r = .14$, 95% CI = (-.04, .31) (Coombs, 2016; Ma & Zhan, 2016). This dissertation uses the five-item variation of ORP as it has been used consistently and effectively in research related to SCCT (Coombs, 2016; Ma & Zhan, 2016).

2.2.3 Base Crisis Reponses

In initially explaining potential crisis responses, Coombs (2006) noted in passing that there are other crisis responses that are not part of the reputation messages typically studied. These messages, called instructing information and adjusting information, inform stakeholders of how to be safe during a crisis and help them recover following a crisis. Sometimes, these strategies are called the base crisis responses (Coombs, 2015; Kim & Sung, 2014; Park, 2017). Unfortunately, the base crisis responses have not been the subject of much research (Kim, Avery, & Lariscy, 2011; Kim & Sung, 2014).

Instructing information is information that helps people responsibly protect themselves during a crisis (Coombs, 2006). The two objectives of instructing information are to avoid harm and maintain business continuity. To fulfill the first objective, instructing information can take the form of encouraging people to evacuate an area or participate in a product recall (Coombs, 2015; Kim & Sung, 2014). Distributing this information in a timely manner is critical for an organization's reputation. Indeed, the failure to provide instructing information has created magnified crises and legal headaches for many organizations including the National Football League with its concussions crisis (Schwarz, Bogdanich, & Williams, 2016), the tobacco industry with its cancer crisis, (Glantz, 2000), and various government agencies regarding the Flint, Michigan water contamination crisis (CNN Library, 2017).

The second form of instructing information only impacts certain crisis situations. It concerns providing information to employees about continuity of

business. Such information might include if/when pay checks will be coming, when employees are expected to show up for work, and other important matters (Coombs, 2015). While it intuitively follows that this information will be critical to internal communication objectives and employee morale, no found research has examined this form of instructing information.

Adjusting information is information that helps stakeholders address the psychological issues that come from experiencing a crisis. These messages may include corrective action, counseling for those impacted, or expressing sympathy for those harmed. However, at its core, adjusting information messages exist to help stakeholders know the organization is back in control (Coombs, 2015; Park, 2017). The organization should share background information regarding the crisis so that stakeholders can gain closure and understand what happened. Coombs (2015) argues that one form of adjusting information is the discourse of renewal, which focuses messages on how an organization will rebuild in the aftermath of a crisis (Seeger & Ulmer, 2002). Assessing this suggestion is difficult because some instances of discourse of renewal have occurred while a crisis was still ongoing (e.g., Seeger & Ulmer, 2002); however, others have occurred long after a crisis ended (Veil, Sellnow, & Heald, 2011). Adjusting information is typically given during or immediately after a crisis (Coombs, 2015), so the discourse of renewal in the form of a memorial for the Oklahoma City bombing (Veil et al., 2011) does not appear to fit within this conception.

Base crisis responses were not studied much in the early days of SCCT; however, two recent studies tested the bases responses in experiments. In the first

study, Kim and Sung (2014) experimentally manipulated the presence of base crisis responses with matched or mismatched crisis response strategies according to SCCT. They operationalized their study with a fictitious food company whose product became deadly as a result of product tampering (victim) or unsanitary conditions (preventable). The sample of 242 undergraduate students found that the presence of base crisis responses had the greatest impact on reputation outcomes and found little support for SCCT's response suggestions.

In the second study, Park (2017) examined corporate social responsibility messages and crisis response. The study used a fictitious outerwear company to operationalize an environmental crisis with a leak from the company's facility that contaminated a nearby water source. The study randomly assigned its 301 participants selected from an online consumer panel to one of four response conditions of no response, reminding messages, base crisis responses, and both base responses and reminding messages. The study found that the base crisis responses and both base responses and reminding messages resulted in greater reputation, more favorable behavioral intentions, and more trust than the reminding messages or no response conditions.

However, none of this research measured the effectiveness of the stimuli in achieving the goals of base crisis responses. Researchers wrote stimuli that were explained in their write-ups and then tested outcomes. However, not all respondents may have believed that the stimuli reflected the protection objectives of instructing information and comfort objectives of adjusting information. If Coombs (2015) is correct that achieving the goals of instructing and adjusting information may benefit

reputation outcomes, then variations in belief that the communication achieves those goals will predict reputation outcomes. This dissertation will utilize different statistical methods that test for this possibility. Therefore, one goal of this dissertation is to create measures that researchers can use to test the mediated relationship hypothesized by SCCT. Such measures would also provide for manipulation checks that researchers can include in pilot tests or additional studies to ensure they are operationalizing the base crisis response strategies in their research. The planned measure contributions will be described in greater detail in a later section of this dissertation.

2.2.4 The Model of Reputation Repair

During the development of the matched crisis response strategies, researchers (Coombs, 2004; Coombs & Holladay, 2006) conducted two studies that sought to examine other characteristics that might cause an organizational reputation issue. These studies became part of the model of reputation repair that Coombs (2007) hypothesized, a model that remains the official model of SCCT to the present.

The first study examined the potential impact of a past crisis history on attribution of responsibility (Coombs, 2004). Building upon previous work by Coombs and Holladay (2001), this research examined how a history of organizational crises could potentially enhance an organization's responsibility for subsequent crises. Coombs (2004) conducted a 4 (crisis type: workplace violence, product tampering, technical error recall, technical error accident) x 3 (history of crisis: yes, no, unknown) experiment with 321 undergraduate students and community members that randomly presented each participant with one of four crisis situations. Two of the

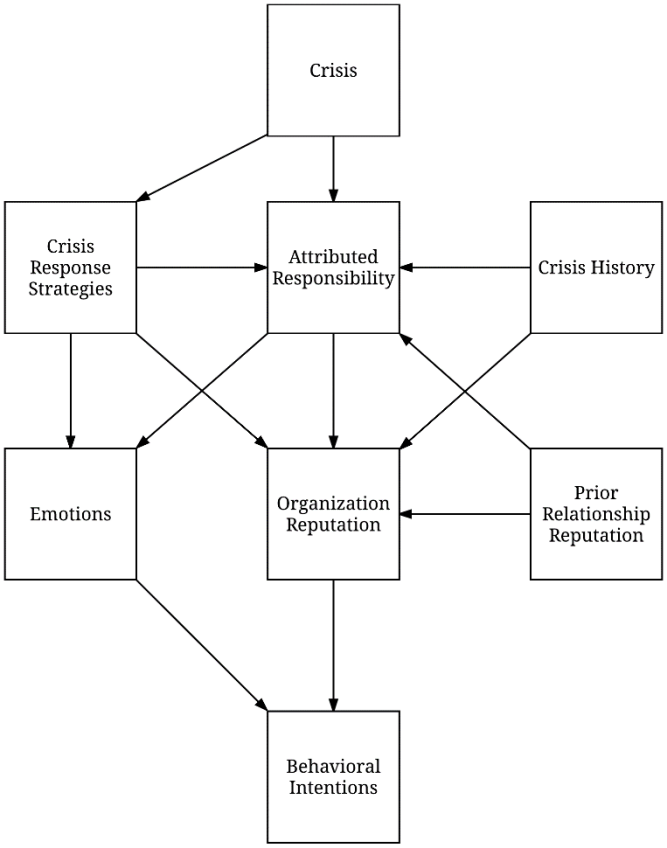
situations were victim type crises and two were accident type crises. The dependent variables of attribution of responsibility and reputation measures each reported a significant effect for crisis history. The research found that attribution increased and reputation decreased as a result of crisis history, even for victim-type crises. Put simply, the study found that a history of experiencing crisis situations increases the reputation threat posed by future crises.

Another study looked at how an organization's pre-existing reputation impacted attribution of responsibility and reputation following a crisis. The study employed three conditions (crisis cluster: accident, preventable, not specified) and was conducted twice with different scenarios regarding Disney and Walmart with 150 undergraduate students. The study only used students who had significantly positive views of the company in the scenario. To determine this, the study began with a general attitude Likert scale question (1-7) about four companies and then only used the data collected from people who reported a four or higher. The study found that an organization with a significantly positive pre-existing relationship with publics may experience a halo effect, which prevented the increase in attribution of responsibility that SCCT would suggest given the change from an accident crisis to a preventable crisis (Coombs & Holladay, 2006). However, the study failed to consistently find this halo effect would impact reputation for an organization, even though attribution of responsibility would be impacted. Notably, this study did not treat attribution as a mediating variable. Rather, it examined reputation and attribution as separate dependent variables. Other studies have tested this halo effect. Some have found pre-existing reputation made a significant difference on crisis outcomes, even more than

the effect of the response strategy (e.g., Dean, 2004; Sohn & Lariscy, 2012). In contrast, other studies have found partial or no impact of pre-existing reputation on organizations' attributed crisis responsibility (Sheldon & Sallot, 2008; Watson, 2007).

Still, this early research encouraged Coombs (2007, 2010) to modify the model of crisis communication that had initially been posited by Coombs and Holladay (2002). The model now treated attributed responsibility as partially mediating the relationship between the crisis response strategy and reputation outcomes. It also included other factors including past crisis history and prior reputation (see Figure 2.8) (Coombs 2010). This model has remained unchanged in the years since, though studies have considered additional variables that will be discussed in future sections of this dissertation.

Figure 2.8 Model of Reputation Repair (Coombs, 2007)



Coombs (2004) suggested that the harm to reputation came through attributed responsibility, suggesting a mediated relationship. However, analyses have not assessed this suggestion. As Coombs (2004) noted, "Thus far, the assessment

of their crisis situation model has relied on basic correlations and regression analyses. More advanced statistical analyses, such as path analysis, should be used to assess the appropriateness of the model" (p. 285). Further, Coombs suggested (2004) that the exact nature of the model might change depending upon the crisis type. Despite this call, minimal research has examined a mediated relationship and the limited research that has is still inadequate.

Lee (2005) was one of the first to take a structural modeling approach to a crisis situation. This study found that responsibility mediates the relationship between the crisis response and trust. Unfortunately, it did not measure the crisis response strategy, which would have allowed for a better understanding of how variation in perceptions of the crisis response strategy predict trust.

Another approach has been to measure other aspects of the crisis response as the exogenous variable, rather than whether the response took the appropriate amount of responsibility, while retaining the idea that attributed responsibility impacts reputation (e.g., Bowen, Freidank, Wannow, & Cavallone, 2017; Crijns et al., 2017; Kim & Park, 2017; Xiao, Cauberghe, & Hudders, 2017). For instance, studies have measured sincerity (Xiao et al., 2017), skepticism (Crijns et al., 2017), and credibility (Kim & Park, 2017). While these studies examine dimensions of crisis response individually, they do not compare those attributes to one another. Accordingly, these studies cannot demonstrate which attributes predict reputation change or different attitudes regarding attributed responsibility and offensiveness.

Rather than follow the guidance of Coombs (2004) and use structural equation modeling, research could look at the reputation outcomes in a series of A-B tests to

do such testing and refining. Most of the research to date has done this by using reputation, trust, behavioral intentions, word-of-mouth communication, or attributed responsibility as unique dependent variables with no relationship between them (e.g., Beldad, van Laar, & Hegner, 2017; Claeys & Cauberghe, 2014; Coombs & Schmidt, 2000; Griffin, Babin, & Attaway, 1991; Kim & Sung, 2014; Lyon & Cameron, 2004; Ma & Zhan, 2016; Park, 2017; Park & Reber, 2011; Sisco, 2012; Verhoeven, Van Hoof, Ter Keurs, & Van Vuuren, 2012; Xu & Wu, 2017). This research has enhanced knowledge of crisis communication. For instance, it has demonstrated that stealing thunder can benefit an organization (Beldad et al., 2017), the importance of the base crisis response strategies (Kim & Sung, 2014; Park, 2017), and the impact of crisis messages over time (Lyon & Cameron, 2004). However, this research would greatly benefit from incorporating the structural equation modeling approach for two reasons.

First, without looking at the mediated model put forward by Coombs (2007, 2010), we are unable to assess its validity. The model proposes a relationship that could give more context to results that show more or less change in reputation and attribution of responsibility.

Second, as currently measured, crisis communication has small effect sizes. The effect size of using matched response strategies compared with mismatched strategies is small according to the meta analysis, $r = .23$ (Coombs, 2016; Ma & Zhan, 2016). A small effect size increases the required sample size for each study and adds to the possibility of a type 2 error becoming common belief. This is not a problem confined solely to crisis communication; however, we do not have dozens of journals publishing thousands of articles each year, nor do we have many replication

studies. Indeed, the exhaustive meta-analysis found only 35 experiments from 24 published studies in nearly a 25-year period (Ma & Zhan, 2016). There are other non-experimental studies that have increased understanding of SCCT significantly with content analysis (e.g., Gerken, Van der Land, & van der Meer, 2016; Kim & Liu, 2012; Watson, 2007); however, significantly more experiments would be necessary to continue doing research this way. Admittedly, the rate of crisis research is accelerating (Ha & Riffe, 2015), but the resources that do exist are not anything approaching the size needed for hundreds of published A-B tests, many from replication.

The need for more studies grows significantly when research considers two different types of messages, such as comparing the base crisis responses and reputation management strategies (e.g., Kim & Sung, 2014; Park, 2017). Going from one to two categorical variables in A-B testing significantly increases the number of studies required to examine the outcomes through a dependent variable such as reputation. The number of studies required is exponentially greater if research does not simplify the issue by combining instructing information and adjusting information into one category (base responses) rather than treating each as a separate categorical variable (Kim & Sung, 2014; Park, 2017).

This dilemma can be resolved through scale measures that assess whether responses meet the theoretical suggestions of SCCT through structural equation modeling. The absence of such a measure has left researchers unable to assess how perceptions of the amount of responsibility taken during a crisis would impact results, thus preventing research from suggesting modifications to the theory of what crisis

responses should contain to protect stakeholders and organizational reputations. Further, it is possible that not all stakeholders will perceive crisis responses as meeting the guidelines set forth by SCCT, and that these discrepancies might explain different attitudes in attribution or reputation. Measuring perceptions of crisis responses allows the researcher to assess these possibilities. Therefore, this research creates measures to examine crisis response strategies and then test the mediated relationship:

RQ2: How can crisis reputation management messages be measured?

H2a: The effectiveness of an organization's reputation management messages will predict its reputation following a crisis.

H2b: Attributed responsibility will mediate the relationship between the effectiveness of reputation management messages and reputation.

RQ3: How instructing information given during a crisis be measured?

RQ4: How can adjusting information given during a crisis be measured?

H3a: The effectiveness of instructing information will predict organizational reputation following a crisis.

H3b: Attributed responsibility will mediate the relationship between the effectiveness of instructing information and reputation.

H3c: The effectiveness of adjusting information will predict reputation outcomes following a crisis.

H3d: Attributed responsibility will mediate the relationship between the effectiveness of adjusting information and reputation.

Much of the growth of crisis communication research since SCCT was developed has examined how additional factors could impact how people respond to crisis communication. These factors include emotions (e.g., Grappi & Romani, 2015; Guckian, Chapman, Lickel, & Markowitz, 2017; Jin, Pang, & Cameron, 2012; Kim & Jin, 2016; Vignal Lambret, & Barki, 2017), the impact of stealing thunder (Arpan & Pompper, 2003; Lee, 2016; Zhou & Shin, 2017), involvement in the crisis (Choi & Chung, 2013; Claeys & Cauberghe, 2014; Kim & Jin, 2016), intergroup bias (Crijins et al., 2017; Diers-Lawson, 2017), organization type (Sisco, 2012), how organization's frame their crisis response (Claeys & Cauberghe, 2014; Xiao et al., 2017), voice pitch and speech rate (De Waele, & Claeys, 2017), industry-wide crisis history (Lee & Kim, 2016), and the channel organizations use to disseminate their crisis messages (Coombs & Holladay, 2009; Park & Avery, 2016). Research focused on studying additional factors in crisis communication should definitely continue (Coombs, 2016; Ma & Zhan, 2016); however, it can be strengthened if it is based upon a validated model that consistently predicts the theorized outcomes. Thus, a test of whether SCCT's matching construct improves reputation following a crisis compared with mismatched strategies will be useful. Therefore, this dissertation tests:

H4a: Instructing information will result in improved reputation for an organization.

H4b: Adjusting information will result in improved reputation for an organization.

H4c: SCCT's matched response strategies will result in improved reputation for an organization.

H4d: Instructing information will result in decreased attributed responsibility for an organization.

H4e: Adjusting information will result in decreased attributed responsibility for an organization.

H4f: SCCT's matched response strategies will result in decreased attributed responsibility for an organization.

2.2.5 Revisions to Prescribed Responses

SCCT's matched responses underwent a makeover in Coombs' (2015) book. The book does not identify these changes as a response to any specific empirical research, and no found research specifically calls for these changes. However, Kim and Sung (2014) found that denial posture responses for a victim crisis were ineffective and that only base crisis responses were needed for effective organizational crisis communication. This finding may have suggested some of the changes that the book put forward. The changes do add sophistication to the model. Specifically, the crisis responses changed from three responses to four postures and a new series of rules prescribing when specific strategies should be used was adopted.

Coombs (2015) expanded the three response strategy clusters to four postures that were organized based upon the goal of the response strategy (Coombs, 2015). The deny cluster and diminish cluster were renamed the denial posture and the diminishment posture respectively, but their response strategies stayed consistent. The deal cluster was changed slightly and renamed the rebuilding posture. Its new purpose was to build the organization's reputation with key stakeholders. Strategies included apology and giving compensation to victims of the crisis. Coombs (2015)

notes that these three postures represent a spectrum of accommodation of the complaint and stakeholders.

The bolstering posture was added as a new posture to supplement other postures. Rather than specifically addressing responsibility for a crisis, response strategies in the bolstering posture aim to build positive connections with stakeholders. This strategy was drawn from image repair theory and apologia (Benoit, 1997; Ware & Linkugel, 1973). Bolstering strategies include reminding, ingratiation, and victimage. Reminding is helping stakeholders remember past good works such as corporate responsibility efforts. Ingratiation is praising stakeholders. Victimage is pointing out that the organization is also a victim of the crisis (Coombs, 2015).

To explain how an organization should respond to a crisis, Coombs (2015) postulated 13 new rules for SCCT. Coombs (2015) provides no specific explanation for these rules and no empirical research specifically calls for the changes they make. The inclusion of the base crisis responses might be a response to Kim and Sung's (2014) finding that base crisis responses impact reputation. However, Coombs (2006) had already suggested that instructing information should always occur. The core features of instructing information from Coombs (2006) are the same as a combination of instructing and adjusting information in Coombs (2015). The rules argue that crisis communicators should always present instructing information during a crisis, give adjusting information when requested, and use corrective action (part of adjusting information) specifically if stakeholders are likely to believe a challenge crisis. In terms of reputation management strategies, SCCT now suggests (Coombs, 2015) that a victim crisis where an organization has no prior crisis history or poor

Figure 2.9 Coombs (2015) Revised Matching Construct

1. Provide instructing information to all victims and potential victims.
2. Provide adjusting information to victims asking for it.
3. Use diminishment for victim crisis if no prior crisis history and good reputation.
4. Use diminishment for accident crisis if no prior crisis history and good reputation.
5. Use rebuilding for accident crisis if prior crisis history or bad reputation.
6. Use rebuilding for preventable crisis.
7. Use denial for rumor crisis.
8. Use denial for unwarranted challenge.
9. Use corrective action when other stakeholders will support the challenge.
10. Bolstering may be used to supplement other responses.
11. Only use victimage with victim crisis.
12. Do not mix denial and diminishment or denial and rebuilding.
13. Diminishment and rebuilding may be used together.

relationship with relevant stakeholders requires no response beyond simple adjusting and instructing information. Otherwise, Coombs (2015) suggestions remain very similar for the first three postures as they did with the old clusters; however, SCCT suggests that a history of crises or poor reputation may increase the degree of accommodation needed. The rules further give specific guidance on the use of the denial (for rumors or false challenges) and victimage (only for victim crises) strategies specifically. The rules also suggest that diminishment and rebuilding strategies can be used together, and that bolstering strategies can be used with any of the other strategies (see Figure 2.9).

2.3 Moving Forward

In the introduction chapter, this dissertation argued that failures of SCCT in experiments constituted an anomaly that merits particular consideration. This section will discuss this anomaly by reviewing four studies that cast doubt on the viability of

SCCT's constructs and then suggest revisions that may improve crisis communication theory moving forward.

As mentioned earlier in this literature review chapter, Kim and Sung (2014) conducted an experiment in which they combined the use of base crisis response strategies (instructing information and adjusting information) with reputation management strategies to see if reputation management strategies made a difference above and beyond the base response strategies. Their conclusion was that the base responses made a significant impact on all dependent variables of attributed responsibility, purchase intentions, behavioral intentions, company evaluation, and product evaluation, and they found little support for using SCCT's prescribed reputation repair strategies. In particular, the study found that incorporating a base crisis response made the largest difference across the dependent variables and that adding a reputation management message made a minimal difference. This was especially true in a victim type crisis, where a denial posture strategy did not change the results above and beyond the base crisis responses. These findings exposed two problems with the existing reputation repair paradigm. First, the results suggested that the barely-studied base crisis responses had a much bigger effect on post-crisis reputation than the regularly studied reputation management messages. Second, the study found that denying responsibility for a crisis reduced attribution of responsibility more than giving an apology. This is intuitive, as some stakeholders are bound to believe a denial while others will reject it. However, SCCT predicts that denial will increase attribution compared with apology in a preventable crisis situation. A subsequent study with 282 students in Sweden examined this question as

well using a 2 (weak evidence vs. strong evidence) x 2 (apology vs. denial) design with a fictitious Swedish company accused of international corruption through bribery. While the alleged misdeeds were held constant, this study used very weak evidence of guilt as a rumor condition (victim crisis), while it used certain evidence as a corporate malfeasance condition (preventable crisis). The study found that denial resulted in superior perceived integrity and benevolence than apology in the strong evidence (preventable) condition. Further, in the preventable condition apology and denial resulted in similar results in terms of perceived ability and trusted intentions (Fuoli et al., 2017).

Another example of the anomaly in current reputation repair research is highlighted by a meta-analysis that found that SCCT's predictions only hold in student samples (Ma & Zhan, 2016). The confidence interval for results among non-student samples includes 0, r = .11 95% CI = (-.01, .24), meaning that there is no statistically significant effect in non-student samples. This is a serious anomaly, especially in a meta-analysis that reflects every published experiment of the theory at the time. This finding casts doubt on whether SCCT can effectively guide organizational crisis responses in cases where students are not the only stakeholders.

The final study that found the anomaly in reputation repair research gives a clue as to what the problem might be. This can give us a roadmap to a new paradigm that will lead to better results. Claeys, Cauberghe and Vyncke (2010) found no effect for using SCCT's prescribed strategies until they included involvement and rational framing as moderators (Claeys & Cauberghe, 2014). Claeys and Cauberghe (2014) conducted a 2 (strategy: matched, mismatched) x 2 (involvement: low, high) x 2

(framing: rational, emotional) to examine a preventable crisis operationalized as the pollution of drinking water either in the Netherlands (high involvement) or India (low involvement). In the case of the Netherlands, the company was identified as also providing water to neighboring Belgium, where the 274 participants reside. Rational framing was operationalized as not invoking emotion (e.g., we regret this happened) while emotional framing invoked adjectives and subjective judgements (e.g., "we are horrified"). SCCT's prescribed strategies resulted in more favorable attitudes toward the fictional company than mismatched strategies in cases of high involvement or rational framing. However, in cases of low involvement or emotional framing, using prescribed strategies did not make an impact. The importance of involvement in a crisis situation has been validated by other studies as well (Choi & Chung, 2013; Kim & Jin, 2016).

We have no theoretical reason within SCCT to explain the importance of involvement. However, if we return to the origins of the reputation repair paradigm and the work of Benoit (1995, 1997; Benoit & Dorries, 1996), we may have a solution. There are two components of a crisis. First, someone must be responsible for an act. For this reason, attributed responsibility was adopted as the dominant consideration within SCCT that mediates the relationship between the crisis response and reputation outcomes (Coombs, 2006, 2007, 2015; Coombs & Holladay, 2002). Second, that act must be perceived as offensive (Benoit, 1995, 1997; Benoit & Dorries, 1996). This element of offensiveness does not appear within SCCT, but certainly could overlap with the concept of involvement as measured in Claeys and Cauberghe (2014). They specifically operationalized a water contamination crisis as

involved if it was in the participant's country of origin and could potentially impact their country, while the low involvement condition occurred thousands of miles away on another continent. At this point, it is beyond dispute that people will consider harm to those closer to them as more offensive than harm to those in far-away lands (Hewstone, Rubin, & Willis, 2002; Tajfel, 1982). This supposition makes even more sense when we consider the specific measures Claeys and Cauberghe (2014) employed. They measured involvement with three statements including "These events are very important to me" (p. 185), which could easily serve as indicators for the concept of offensiveness. Thus, one component of a new reputation repair paradigm will be to include this offensiveness criterion in understanding a crisis.

The rhetorical theory of image repair suggests that both offensiveness and attributed responsibility are necessary conditions for a crisis to be present. The need for both factors to be present requires an interaction effect or new measures that incorporate both together. Therefore, this dissertation will create new measures that predict reputation outcomes from a crisis.

RQ5: How can the model of reputation repair be revised to incorporate the new elements of offensiveness, instructing information, adjusting information, and reputation management messages?

RQ7a: Does the revised model of reputation repair change depending upon the presence or absence of instructing information?

RQ7b: Does the revised model of reputation repair change depending upon the presence or absence of adjusting information?

RQ8a: Does the revised model of reputation repair change depending upon the crisis type?

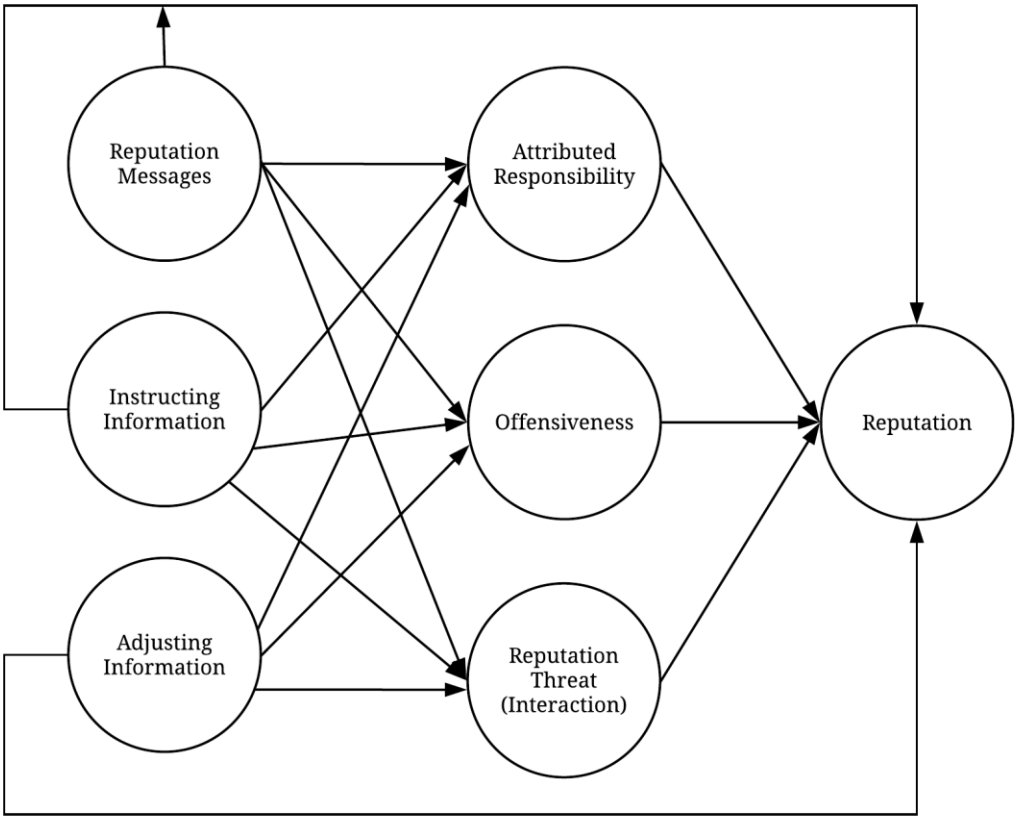
RQ8b: Does the revised model of reputation repair change depending upon the severity of the crisis?

RQ8c: Does the revised model of reputation repair change depending upon whether a crisis response is matched according to SCCT?

2.4 Conclusion

This literature review has reviewed SCCT's prescribed model of communication and suggestions for matched strategies. In so doing, it has identified the need for research to create new measures that test aspects of crisis response and crisis reputation threat and to use structural equation modeling to examine how these measures relate and explain how crisis situations impact organization's reputations. The measures indicated will enhance public relations and crisis communication theory by empowering future researchers to examine additional aspects of crisis. Further, these measures and the structural model proposed will enable researchers to identify the characteristics of crisis response that impact reputation (see Figure 2.10), which in turn can improve how organizations manage crises.

Figure 2.10 Proposed Model of Reputation Repair



Chapter 3: Scale Development

The method for this dissertation took three parts. In part 1 – pilot 1, the researcher found ideas for scale items to develop. In part 2 – pilot 2, the scales were finalized and their reliability and validity tested. This testing included a type of Qualitative Comparative Analysis (QCA) called fuzzy-set Qualitative Comparative Analysis (fsQCA) to examine the necessity of offensiveness and attributed responsibility for a crisis threat to exist. In part 3 – experiment, the new scales were structurally modeled to test how they relate to one another and existing measurements of reputation and attribution. This chapter describes parts 1 and 2, which concern the development of the new scale measurements, and then discusses what is learned from them. Further, based upon the scale development, it proposes additional hypotheses for the experiment.

3.1 Part 1: Pilot 1

The literature review explains that existing measures to assess crisis response strategies and offensiveness were insufficient for the research needs outlined by this dissertation. In the case of crisis offensiveness, the MFQ (Graham et al., 2009) needed to be revised for an organizational crisis context. For measuring crisis responses (instructing information, adjusting information, and reputation management messages), no existing measures existed, though a few scale items that measure related concepts related had been created (e.g., Bowen et al., 2017; Kim & Park, 2017; Len-Rios et al., 2015). Therefore, this research creates a series of valid, reliable scales to measure crisis offensiveness and crisis responses. To do so, it draws upon existing research where possible (Coombs, 2015; Kim & Park, 2017; Len-Rios et al.,

2015), but also surveys people with expertise in public relations to gain additional ideas to develop measures. Using experts establishes face validity of scale items (Worthington & Whittaker, 2006).

This dissertation used a review of literature to develop measurement items, which is a common approach (e.g., Bruning & Ledingham, 1999; Huang, 2012; Jin, Liu, Anagondahalli, & Austin, 2014). In addition, a convenience sample of 20 people with expertise in public relations were interviewed to provide suggestions for scale items and review stimuli (pilot 1). Using Qualtrics, the researcher recruited participants first with purposive sampling of a few personal contacts followed by snowball sampling. People with expertise in public relations were defined as people who have worked in a public relations position for at least one year, earned a bachelor's degree in public relations or completed at least one year of graduate study in public relations. Of the sample, 11 (55%) were female. In terms of experience, 10 (50%) participants had a bachelor's degree in public relations, five (25%) had completed at least one year of graduate study in public relations, and 15 (75%) had professional experience working in public relations. Only five (25%) had not worked in public relations at some point. Of those who worked in the field, years worked ranged from 1 – 30 years with a mean of 9.7 years. Participants who had worked in the public relations field had titles ranging from Chief Executive Officer and Senior Vice President of Marketing and Communications to Assistant Account Executive.

To create scale items, the researcher presented participants with three open-ended questions that asked what their communication objectives would be in crisis situations (see Appendix A). These questions were specific to the goals explained by

Coombs (2015) for instructing information (protect stakeholders during a crisis), adjusting information (help stakeholders psychologically cope after a crisis), and reputation management messages (repair organization's reputation). Using the responses to the three questions, the researcher developed a list of 32 prospective statements to measure instructing information, adjusting information, and reputation management messages. Consistent with Worthington and Whittaker's (2006) suggestion that a small group of experts review options to establish face validity, the final list of response options was reviewed closely by four public relations graduate students who had recently completed coursework in crisis communication and were familiar with instructing information, adjusting information, and reputation management messages as described by Coombs (2015). These four graduate students, along with their professor, an expert in crisis communication, each suggested revisions to the final stimuli that were incorporated by the researcher.

In addition, during the interviews of 20 people with expertise in public relations, participants were asked questions about the different ways an organization could cause a crisis, with questions derived from moral foundations theory (Graham et al., 2011). For instance, participants were asked how an organization could harm someone, representing the care foundation (see Appendix A for full pilot). Using the responses and the MFQ (Graham et al., 2009) the researcher created a series of 51 prospective statements (see Appendix B) to measure the five dimensions of offensiveness (9-12 statements per dimension). The first three statements for each dimension were taken directly from the moral relevance section of the MFQ that had been validated by prior research (e.g., Graham et al., 2009, 2011), and the rest were

developed based upon the literature and suggestions given by people with expertise in public relations.

3.2 Part 2: Pilot 2

A sample of 797 participants completed pilot 2 through mTurk. Their feedback was used to finalize the scales and then test their reliability and validity. Participants were compensated $.35 to take a 10-minute survey administered through the online platform Qualtrics. This amount is within normal range on mTurk and gets a large response rate (Buhrmester, Kwang, & Gosling, 2011). Participants read vignettes and answered a series of questions. Each participant saw five separate reading check questions that directed them to enter a specific answer (e.g., "Select strongly agree to prove you are reading."). Any response that failed one or more reading checks was removed.

The sample was randomly assigned to one of two conditions: reputation threat and response strategies. The number of responses was weighted to send more participants to examine reputation threat, though individual assignment of participants was determined randomly through Qualtrics. Appendix B contains the full pilot test.

3.2.1 Amazon's Mechanical Turk

Amazon's Mechanical Turk (mTurk) is an online system that connects workers with people who would like to hire them. It is increasingly used in public relations research (e.g., Kim & Park, 2017; Roh, 2017; Xu, 2017). Any person in the United States can create an account to either hire workers (called requesters) or perform work (called workers). Previously, Amazon allowed residents of India to create accounts; however, in 2012, Amazon stopped allowing the creation of new

international worker accounts (Sheehan & Pittman, 2016). This research is restricted to U.S. based users of mTurk. A task that requesters give is called a HIT, which is an acronym for human intelligence task. Requesters post the HIT with a price they are willing to pay for completion and workers sign up to complete the HIT. Requesters may set up restrictions on which workers may perform their HITs. For instance, requesters may limit the geographic location of workers, require workers to have completed a certain number of HITs, or require workers to have a specific success rate in having their work accepted by requesters in order to perform a HIT (Paolacci & Chandler, 2014; Sheehan & Pittman, 2016).

Multiple studies have examined the demographics of mTurk workers as well as the quality of work they perform. In terms of demographics, mTurk workers are generally more diverse than student samples or even most convenience samples taken from mall intercepts and other traditional methods; however, they are not as diverse as a true random sample (Berinsky, Huber, & Lenz, 2012; Paolacci & Chandler, 2014). mTurk workers are disproportionately from the United States and approximately evenly split between males and females. On average, mTurk workers are older than college students, but younger than the general population. The data suggests that mTurk early adopters were disproportionately young but that older Americans are now getting involved and the age of workers is moving toward the average age of Americans. In the United States, around 10% of workers were born in the 1950s or 1960s, ages 48 – 67 at the time of this research. Approximately 50% were born in the 1980s, ages 27 – 37 and the rest were approximately evenly split between being born in the 1970s, ages 38 – 47, and 1990s, ages 18 – 27 (Sheehan &

Pittman, 2016). Workers represent a wide range of incomes and education experiences, are disproportionately single, are comparable to the United States population in terms of sexual orientation, may be slightly more politically liberal than the average American, and are more likely to vote than the average American (Sheehan & Pittman, 2016).

A study from Heen, Lieberman, and Miethe (2014) compared mTurk to two other panel services that are available and made similar findings the other studies already cited (e.g., Sheehan and Pittman, 2016). Specifically, they found mTurk had slightly more men than women, had evenly distributed incomes, did particularly well representing middle income Americans, and represented more racial and ethnic diversity than other panel options.

In terms of the quality of work they perform, mTurk workers exceed the standards for published psychometric research despite being very inexpensive to hire (Buhrmester et al., 2011; Sheehan & Pittman, 2016). A low rate of compensation does not appear to lower quality of data, though it does reduce the speed at which data is collected (Buhrmester et al., 2011). Workers are capable of performing complex tasks and also perform quality work. Workers that are subject to a 95% success rate in their HITs perform just as well as participants who are checked with attention checks every 15 questions (Sheehan & Pittman, 2016).

3.2.2 Reputation Threat

Initially, 469 participants were randomly assigned to the reputation threat condition and completed the pilot. This research included five attention checks and participants who answered incorrectly on any of them were discarded. The results

from the remaining 338 participants were used to examine the reputation threat. This number of responses is adequate for factor analysis with communalities of .5 or greater, which was expected to be easily achieved (Worthington & Whittaker, 2006). In addition, this data was used for a multiple regression test to ascertain criterion validity. Therefore, a power analysis was conducted with G*Power 3 using multiple regression assuming five predictors. In order to achieve .8 power with $\alpha = .05$ assuming a .1 effect size, a minimum sample of 134 is needed. Thus, the sample was large enough to validate the scales developed for this dissertation.

Participants were 40.2% male. Racial makeup of the sample was 76.0% Caucasian or White, 7.7% Asian or Pacific Islander, 6.8% Black or African American, 5.6% Hispanic or Latino, 1.5% Native American, and 2.4% Other or preferred not to answer. Participants ranged in age from 20 – 76, with a mean of 37.26 years of age and a standard deviation of 11.42 years.

Participants assessing reputation threat were randomly presented with one of 10 different crisis scenarios derived from the moral foundation stimuli developed and validated by Clifford et al. (2015) (see Appendix B). Each vignette was 20-26 words in length and was written with the same sentence structure. In each, the company took an action to avoid a cost of $500,000. The actions were manipulated to include a violation of a single moral foundation. Two vignettes represented each moral foundation. To control for bias from pre-existing relationships with an organization, fictional companies were used in the vignettes as suggested by Coombs (2016). The companies' names (Megalane and Infralane) were developed from businessnamegenerators.com using the same root of Lane. To test whether attribution

and offensiveness were necessary or sufficient, each vignette was manipulated to be about one of the two companies, while all dependent variables asked about one of the companies (Megalane). The same offensiveness dependent variable questions were repeated with "someone" as the subject, rather than Megalane, to further assess whether attribution and offensiveness were both necessary. Thus, in half of the scenarios, something offensive occurred, but Megalane was not responsible. A control group read an event that had no crisis. Participants in all scenarios answered a series of questions about this crisis event. These questions consisted of an attribution scale developed by Griffin, Babin, and Darden (1992), a derivation of which was also used by Coombs and Holladay (2002) in developing SCCT. The questions also included scale items from the MFQ (Graham et al., 2011), items developed in part 1 regarding offensiveness, all of the offensiveness items repeated a second time with the subject as someone rather than the company, the organization reputation scale developed for SCCT (Coombs & Holladay, 2002), a series of statements adapted from the organization reputation scale that examine how likely an organization's reputation is to change as a result of the specific crisis, and demographic questions (see Appendix B).

3.2.3 Crisis Response

Initially, 328 of the participants who completed the pilot through mTurk were randomly assigned to review the response measures. Participants who failed to answer correctly any of the five attention checks were removed. Results from the remaining 286 participants were used to develop the response measurements. Participants were 42.0% male. Racial makeup of the sample was 82.2% Caucasian or

White, 4.5% Asian or Pacific Islander, 6.3% Black or African American, 3.8% Hispanic or Latino, 0.7% Native American, and 2.4% Other or preferred not to answer. Participants ranged in age from 19 – 80, with a mean of 39.77 years of age and a standard deviation of 13.25 years. As noted previously, this sample size was sufficient to establish the response measures and perform the desired validity tests.

Participants read a random set of vignettes from the experiment (part 3); however, the pilot included three additional response strategies (victimage, justification, and reminder). Participants were then asked a series of questions developed in part 1 and from an extensive literature review about instructing information, adjusting information, and reputation management (see Appendix B). In addition, they were asked to assess the organization on the organization reputation scale developed for SCCT (Coombs & Holladay, 2002) as well as a series of statements adapted from the organization reputation scale that examine how likely an organization's reputation is to change as a result of the specific crisis. The instrument concluded with a few demographic questions (see Appendix B).

EFA and CFA were used to assess the validity and reliability of the scales (Parasuraman, Zeithaml, & Berry, 1988; Xu, 2017). Separate EFAs were conducted for the reputation threat and crisis response scales. The first EFA examined the offensiveness items. This was done using principle axis factoring (PAF) with varimax rotation. However, varimax rotation failed to break the items into distinct factors. Rather, it resulted in items loading heavily on multiple factors, which made clear that the requirement that factors be completely orthogonal was hindering the ability of the analysis to identify distinct factors. Therefore, direct oblique rotation was used to help

condense the scales to items that discriminate and clearly represent the key dimensions of reputation threat (Parasuraman et al., 1988; Xu, 2017). Similarly, the second EFA examined measures of the crisis response messages to identify the dimensions that exist and the ideal statements to retain that ensure the dimensions are distinct and well represented. The second EFA was done using PAF with varimax rotation. CFA was used for each scale to provide numeric description of the fit of the resulting models (Xu, 2017). Validity and the reliability of the measures are discussed in the results section as they represent answers to research questions 1-4.

3.2.4 Qualitative Comparative Analysis

Establishing causation between observed phenomena is one of the hardest and most rewarding aspects of research. That is because causation is rarely completely linear, or without conditions. Consider the question, do matches cause fire? Certainly a match may create a fire, a causal effect called asymmetric causation. However, certain conditions are necessary for a match to cause a fire. For instance, oxygen must be present, the match must have some other substance to burn, and the match must be struck against an object. Without any one of these elements, a match will not create a fire. Thus, each of these elements is a necessary condition for a fire to be created. If we are missing one of these necessary conditions, then an increase in the quantity of matches will not produce any fire. For example, many people safely store many matches in their homes by preventing those matches from striking another object. It does not matter how many matches one stores, if they are not struck against an object, they will not create a fire.

To make establishing asymmetric causation even more complicated, other combinations of conditions are sufficient to create a fire without a match at all. For instance, a human in an environment with oxygen striking a match next to a bottle of gasoline and some kindling is sufficient to create a fire; however, the fire could still be created if flint and steel replaced the match or if the gasoline was removed entirely and extra care was taken to help the fire grow.

The linear method of establishing such relationships would involve obtaining a large dataset of matches and testing various moderators (e.g., striking a match, gasoline, kindling) to see which result in fire and which do not. However, in many fields, gathering a large sample size is impossible or prohibitively expensive. Scholars in public policy often work with a handful of governments (e.g., Schimmelfennig, 2005; Vis, 2011). In public relations, the excellence study was incredibly expensive at $400,000 precisely because it required a very large sample size in order to use linear methods to determine the excellence factor (Dozier, Grunig, & Grunig, 1995). For these areas, QCA offers an alternative that can establish asymmetrical causation with a significantly smaller dataset and therefore lower cost.

QCA is a research method that can be used to establish the necessary and sufficient conditions of asymmetrical causation in small datasets (Rihoux et al., 2013; Rihoux, Rezsöhazy, & Bol, 2011; Schneider & Wagemann, 2012). QCA is best seen as a complement to other methods (Ragin, 2006) and it has grown into a mainstream method that is particularly popular in management, political science, sociology and anthropology (Rihoux et al., 2013).

QCA has been used sparingly in communication research to date. The method has demonstrated which combinations of communicative and psychological factors are sufficient to produce positive attitudes toward an out-group (Atwell Seate, Joyce, Harwood, & Arroyo, 2015), examined the relationship between competition and financial commitment in European newspapers (Russi, Seigert, Gerth, & Krebs, 2014), and determined the features of a local news environment that contribute to successful civic news websites (Kim, Konieczna, Yoon, & Friedland, 2016).

QCA is focused on necessity and sufficiency. Necessity refers to if some phenomenon is required for another phenomenon to occur. For instance, a political science research study might examine whether democracy is a necessary condition for notions of human rights to exist within a nation. Set-theoretic methods examine this question by using set membership. Therefore, they would examine a group of existing cases (nations for this study) and assess whether each is democratic or has notions of human rights. Democracy will be deemed necessary if cases where democracy is present is a superset of all cases in which notions of human rights exist; however, democracy will not be deemed necessary if notions of human rights exist in non-democratic nations (see Figure 3.1).

Sufficiency refers to when the presence of a phenomenon ensures that another phenomenon will occur, regardless of other circumstances. A sufficient condition is a subset of all cases of the phenomena for which it is sufficient. In the political science example, sufficiency would be established if all nations where democracy exists were also places where notions of human rights exist (see Figure 3.2). It is possible for a phenomenon to have many different combinations of necessary or sufficient

conditions. Indeed, the potential for a phenomenon to be caused in many different ways is called equifinality (Schnieder & Wagemann, 2012).

Figure 3.1 Necessary Conditions

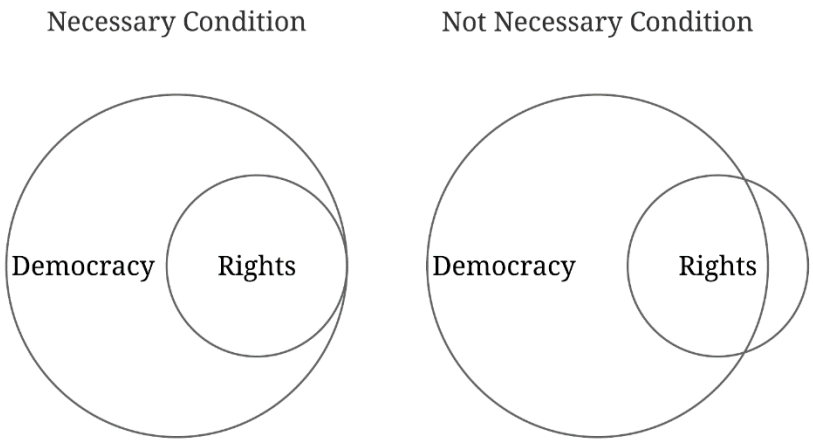
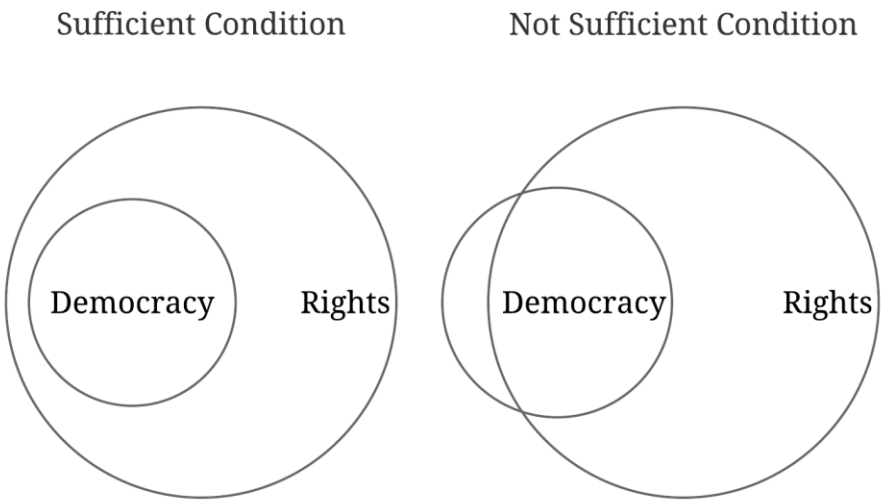


Figure 3.2 Sufficient Conditions



Any trait, action, or characteristic can be viewed as a set. For instance, the author of this dissertation belongs to the set of people with blond hair, the set of graduate students at the University of Maryland, and the set of people who cheer for the University of Maryland basketball teams. QCA is a set-theoretic method that uses truth tables to establish causal relationships (Rihoux & Ragin, 2008; Schneider &

Wagemann, 2010, 2012). For instance, QCA could be used to demonstrate whether being in the set of graduate students at the University of Maryland causes someone to be in the set of people who cheer for the University of Maryland's basketball teams.

QCA is a popular method in the public policy literature, where multiple factors usually are required to solve a problem (Rihoux et al., 2011, 2013). QCA can be performed with crisp sets (csQCA) or fuzzy sets (fsQCA). Crisp sets identify all set memberships as either present or not, indicated by 1 and 0 respectively in data (Rihoux & Ragin, 2008). For instance, one study conducted a csQCA on nine nations in Eastern Europe to determine which of two geopolitical theories better describes the changes seen there (Schimmelfennig, 2005).

The study examined the conditions that are necessary and sufficient for countries to be in compliance with international demands that they recognize minority rights and democratize. The two theories examined were social learning (Bandura & Waters, 1977; Checkel, 2001) and external incentives (Schimmelfennig & Sedelmeier, 2004). Social learning suggests that countries will give in to international pressure to take action when they see the norms requested as legitimate and resonant and they identify with the nations giving the pressure. External incentives suggests that countries will give in to international pressure to take action when the costs of doing so are sufficiently low and the rewards for doing so are sufficiently high. The study then considered a series of cases in each of nine Eastern European countries who were pressured to take action. In total, the study examined 42 situations within these countries. Each case was coded as yes (1) or no (1) for if it was compliant to a request, was offered credible incentives, had low costs to comply, saw the requests as

legitimate, saw the costs as resonant, and identified with the countries making the requests. These results were combined into truth tables, which confirmed a hybrid of the models was correct. The external incentives model generally worked, though it appeared that the use of credible incentives and a western identity in the nation also worked. Thus, this analysis provided for a better understanding of both theories and how a combination of the two could explain public policy outcomes (Schimmelfennig, 2005).

Fuzzy sets acknowledge that set membership can be somewhere in between completely in or completely out and allows for computation of this complexity using decimal points (Schneider & Wagemann, 2010). To do this, the researcher must determine what constitutes group membership. The number 1 is given for total membership, 0 for total exclusion, and the numbers in between reflect the difference between those two points. For instance, .5 is the exact middle point of ambiguity (Ragin, 2006). The researcher then assigns values to each case in a process called calibration (Schneider & Wagemann, 2012). To calibrate results, the researcher choses anchor points of 0, .5, and 1.0, and then assigns a value to each case using the direct method (a software product uses a logarithmic function) or an indirect method (the researcher manually develops the coding scheme).

Vis (2011) used fsQCA to examine the reasons why democracies invest in active labor market policies, which help improve employment prospects. Using a sample of 53 governments from 18 established democracies, the author considered five potential factors that could cause investment in active labor market policies: unemployment, economic growth, partisanship (left or right), economic openness,

and corporatism. She developed a coding scheme for each criteria that rated each government from 0 – 1 consistently (see Figure 3.3 for example). She then used these criteria to assess which combinations of factors resulted in increased active labor market policies. The study found multiple different conditional paths created labor market policies. In each case of investment, unemployment was declining, suggesting that it was a necessary but insufficient condition for investment. Further, the study found that right wing governments and left-wing governments required different conditions in order to invest. Right-wing governments invested when corporatism was present, while left-wing governments invested when corporatism was not present. This demonstrates the power of fsQCA to examine multiple potential causal patterns that can create an effect.

Figure 3.3 Fuzzy Set Coding Scheme from Vis (2011)

Fuzzy-set score	Change in level of economic growth or unemployment
1	$X > 5$
0.83	$2.5 < X \leq 5$
0.67	$0 < X \leq 2.5$
0.5	0
0.33	$-2.5 < X < 0$
0.17	$-5 < X \leq 2.5$
0	$X \leq -5$

The choice of whether to use csQCA or fsQCA is the choice of the researcher (Schneider & Wagemann, 2012). csQCA is easier to conduct but it requires the researcher to force all cases into full membership in or exclusion from a group. In contrast, fsQCA accounts for cases that may not be fully in or out of a group; however, analyzing it is more complicated (Schneider & Wagemann, 2012). In either method, the calculation of necessity and sufficiency happens on truth tables.

Truth tables look a great deal like any other table containing data points; however, they are different in one key way. Traditional tables with data treat each row as a separate case and therefore have as many rows as they have cases. In contrast, truth tables provide a row for each possible combination of results and then list the cases that fit each. As a result, truth tables have 2^k rows, where k is the number of conditions (Rihoux & Ragin, 2008; Schneider & Wagemann, 2012). Tables 3.1 and 3.2 place the same set of 10 data points into a standard data table where each case is a row and a truth table where each possible combination is a row. The method uses these truth tables and the appearance or lack of appearance of certain combinations of set memberships to infer necessity and sufficiency of asymmetrical causation. It is common to use truth tables in published research to explain the findings to readers in cases with few conditions (Schnieder & Wagemann, 2010).

Table 3.1 Standard Data Table

Case	X	Y
1	1	1
2	1	1
3	1	1
4	1	0
5	1	0
6	0	1
7	0	1
8	0	0
9	0	0
10	0	0

Table 3.2 Truth Table

X	Y	Cases
1	1	1, 2, 3
1	0	4, 5
0	1	6, 7
0	0	8, 9, 10

To determine sufficiency, a QCA study will examine a group of cases and place them into a truth table. For condition X to be said to be sufficient cause for outcome Y, then in all cases Y must be greater than or equal to X. That is, in every case where X is present, Y must be present to at least the same degree. In the same study, QCA can be used to determine necessity. Condition X is said to be necessary for outcome Y to occur if in all cases X is greater than or equal to Y. Both necessity

and sufficiency can be demonstrated in a table or it can be illustrated graphically (Schnieder & Wagemann, 2012).

To illustrate necessity graphically, a scatterplot is often used (Schneider & Wagemann, 2012). For a necessary condition to exist, all X will be greater than or equal to their corresponding Y in a dataset. Thus, a researcher can draw a line on a scatterplot from the point (0,0) to point (1,1) and test whether every point on the scatterplot is on or below the line. If so, then necessity is established. Figure 3.4 contains a case where necessity is clearly established, while Figure 3.5 contains a case where necessity is clearly not established.

Similarly, a scatterplot can be used to establish sufficiency. In a sufficient case, all Y will be greater than or equal to their corresponding X in a dataset. Figure 3.6 contains an example of a sufficient condition, while Figure 3.7 contains a case where sufficiency is not established. However, this poses a difficult question to the trained social scientist. How does one determine if a single point or two on the wrong side of the line constitutes a clear contradiction that would disprove necessity or sufficiency or does it reflect the messiness of data that all social scientists experience? As social scientists know, sometimes participants fail to pay attention, mistakenly click the wrong answer, or contradict themselves. While effective data cleaning can correct some of these situations, social scientists need not be held hostage by a single participant not reading a question or clicking the wrong answer. Many studies do not collect data at the unit of the individual, opting instead to use existing data (e.g., Schimmelfennig, 2005; Vis, 2011) and thereby avoid some of these problems. However, even in those cases, data sets can contain strange outliers. For that reason,

researchers have also developed measures to examine potential conflicts and determine whether a case is an outlier or a valid piece of evidence that necessity or sufficiency does not exist. The measures are called coverage and consistency (Schneider & Wagemann, 2012).

Figure 3.4 A Necessary Condition

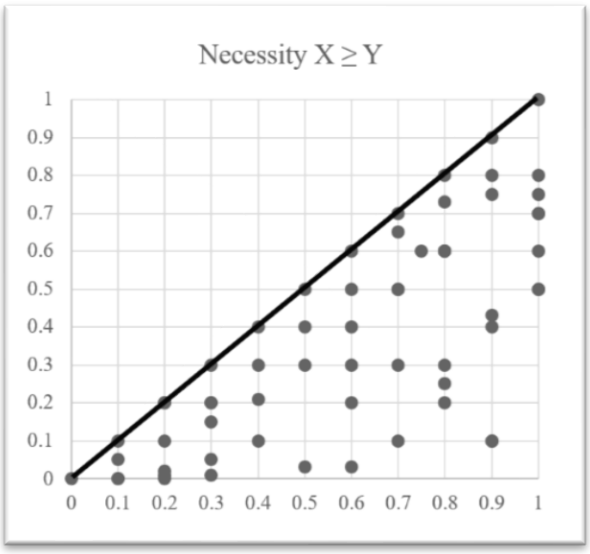


Figure 3.5 Necessity Not Established

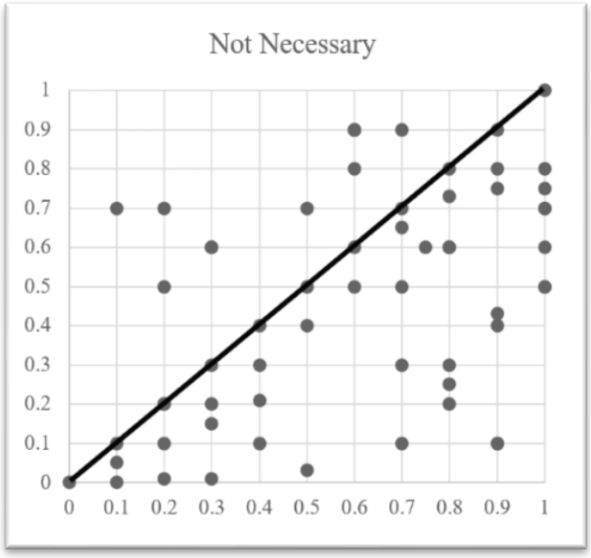
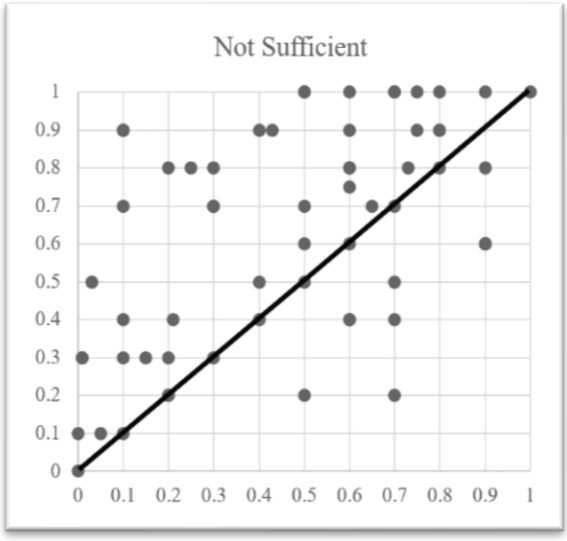


Figure 3.6 A Sufficient Condition

Figure 3.7 Sufficiency Not Established



Consistency refers to the percentage of the cases in which set membership scores of a condition are a subset or superset of an outcome. Effectively, consistency creates a statistic that researchers can use to draw a bright line between when a study finds a condition is necessary or sufficient for membership in an outcome set and when it does not. This is easy in the case of a csQCA, and gets a little more complicated with a fsQCA. Each is discussed in turn.

In a crisp set test of sufficiency, the equation to measure whether an outcome is a superset of a condition is the number of cases in which both X and Y are 1 divided by the number of times that X is one. The test of whether X is necessary for Y is similar with the same numerator and the number of cases where Y is one as the denominator. In fuzzy set tests, the minimum of X and Y replaces 1 in the numerator and X or Y is used in the denominator (Schneider & Wagemann, 2012). Figure 3.8 contains all of the equations for calculating consistency according to Schneider and Wagemann (2012). Typically, researchers use a software program to do the actual calculation for fuzzy set studies. This researcher used free software created by Ragin and Davey (2016).

Once necessity or sufficiency is established, the researcher can explain how much of the outcome the necessary or sufficient condition explains using a statistic called coverage. This statistic is calculated with the equations in Figure 3.9 according to Schneider and Wagemann (2012) and will result in answers ranging from 0 – 1 with high values indicating a higher degree of relevance.

In order to explain potential outliers, a researcher will establish a consistency threshold prior to conducting analysis that will establish necessity or sufficiency. The

goal is to get as close to 1.0 as possible; however, common standards for necessity include .9 and .95 (Ragin, 2006). Given that this dissertation is using the messier data at the individual unit of analysis, this dissertation will use a standard of .9. Common standards for sufficiency tend to be lower. A common threshold suggested by Ragin (2008) is .8, so the researcher choose this threshold, which was also used by Atwell Seate et al. (2015).

Figure 3.8 Equations for Consistency (Schneider & Wagemann, 2012)

	csQCA	**fsQCA**
Necessity	Cases where X=1 & Y=1 / Cases where Y=1	$\sum\min(X, Y) / \sum Y$
Sufficiency	Cases where X=1 & Y=1 / Cases where X=1	$\sum\min(X, Y) / \sum X$

Figure 3.9 Equations for Coverage (Schneider & Wagemann, 2012)

	csQCA	**fsQCA**
Necessity	Cases where X=1 & Y=1 / Cases where X=1	$\sum\min(X, Y) / \sum X$
Sufficiency	Cases where X=1 & Y=1 / Cases where Y=1	$\sum\min(X, Y) / \sum Y$

In this case, SCCT argues that attribution is a necessary and sufficient cause of reputation damage in a crisis (Coombs, 2006, 2007, 2015; Coombs & Holladay, 2002). In contrast, image repair and the rhetorical tradition argues that both attribution and offensiveness are necessary but insufficient conditions for a reputation damage as a result of a crisis. However, taken together, image repair theory argues that these two are sufficient for a reputation threat to exist (Benoit, 1995, 1997; Benoit & Dorries, 1996). Thus, this research used the individual as the unit of

analysis and used results from the reputation threat portion of pilot 2 to conduct a fsQCA, allowing a comparison to the results of the linear methods (Ragin, 2006).

3.3 Pilot Results

The pilot study developed five different measurement scales. Two scales, offensiveness and virtuousness, explain the reputation threat posed by crisis, while three scales, instructing information, adjusting information, and reputation management messages, explain the effectiveness of the response strategies. Further, a fsQCA found that the new combined measures create a sufficient condition for reputation threat to exist, though coverage is moderate. Finally, the crisis response measures are used to assess the model fit of the model of reputation repair posed by Coombs (2007, 2010). Each element is discussed in turn.

3.3.1 Reputation Threat

RQ1a concerns the development of measures to assess crisis offensiveness. This dissertation creates two distinct measures of crisis offensiveness that predict 73.7% of variation in an organization's reputation; however, the measures did not follow the moral foundations theory as expected (Graham et al., 2009, 2011). Rather, the results of several analyses created two measures: one that reflects damage done by an organization (offensiveness) and one that reflects good behavior that mitigates the harm of crisis situations (virtuousness). This section explains the process of developing these scales and demonstrates that each scale has face validity, discriminant validity, and criterion validity. Further, as future researchers might aggregate these scales into an index, high reliability and construct validity of a composite of each scale was established. Finally, this research also demonstrated that

the offensiveness scales predict reputation significantly better than attribution alone. Each aspect is discussed in turn.

First, consistent with how other research has developed measures (e.g., Bruning & Ledingham, 1999; Huang, 2012; Jin et al., 2014) a review of literature was used to find existing measures of offensiveness. The review found that moral foundations theory is a key theory that seeks to understand dimensions of offensiveness through a survey instrument called the MFQ (Graham et al., 2009, 2011; Haidt & Joseph, 2004). Moral foundations theory is focused on personal moral foundations and how people can violate them. While relevant to the topic of this dissertation, the measures contained in the MFQ were not a perfect fit for an organizational crisis context. This research sought to expand moral foundations theory to organizational crises and so adapted the MFQ measures by incorporating input from people familiar with organizational crisis communication. Prior to the pilot, face validity was established by developing statements from suggestions made by a small group of experts, as suggested by Worthington and Whittaker (2006). A series of 51 statements intended to measure the different types of crisis offensiveness were developed (see Appendix B). Pilot 2 participants then rated each of these statements on a scale from 0-10 (0 = strongly disagree, 10 = strongly agree).

An initial exploratory factor analysis with PAF separated the statements into two main factors that explained 58.78% of all variance within the statements. Contrary to the researcher's expectations, the factors did not break down along the lines moral foundations theory would suggest. Rather, the first factor analysis, and many subsequent analyses, suggested that participants did not distinguish the

offensiveness of an organizational crisis based upon moral foundations. Rather, participants treated positive actions (e.g., protecting people) and negative actions (e.g., harming people) as separate dimensions. This dissertation named the factors offensiveness (negative) and virtuousness (positive). Both labels were chosen because they convey a subjective perception in the minds of stakeholders rather than an objective reality. Reputation repair theory focuses on changing subjective perceptions (e.g., Benoit, 1997; Coombs & Holladay, 2002), so these labels are appropriate for the theory. Additional EFAs were conducted to allow the researcher to remove statements with high cross loadings and the resulting statements were placed into a final PAF (see Appendix D for final PAF). Each of the five moral foundations is represented in each of the final scales. The two factors explain 61.48% of variation in the final 19 statements (see Figure 3.10 for final list of statements).

The resulting 19 statements were placed into a CFA with Satorra-Bentler correction. Four pairs of indicators were allowed to correlate, as they seemed to be reasonably correlated above and beyond the aspects that made both indicators of the same factor. Each case is provided here. Fair6 ("Megalane took advantage of someone") was allowed to correlate with Fair8 ("Megalane cheated someone") because both refer to the same specific kind of moral violation. Fair9 ("Megalane was honest") was allowed to correlate with Fair11 ("Megalane acted fairly") because both refer to the same specific moral foundation. Care1 ("Megalane caused someone to suffer emotionally") and Loy2 ("Megalane did something to betray its people") were each allowed to correlate with Care7 ("Megalane was cruel") as the behaviors in

Care1 and Loy2 could easily be described as cruel. The CFA suggested the model was a good fit, *SRMR* = .069, *RMSEA* = .056, 90 CI [.047, .065], *CFI* = .957.

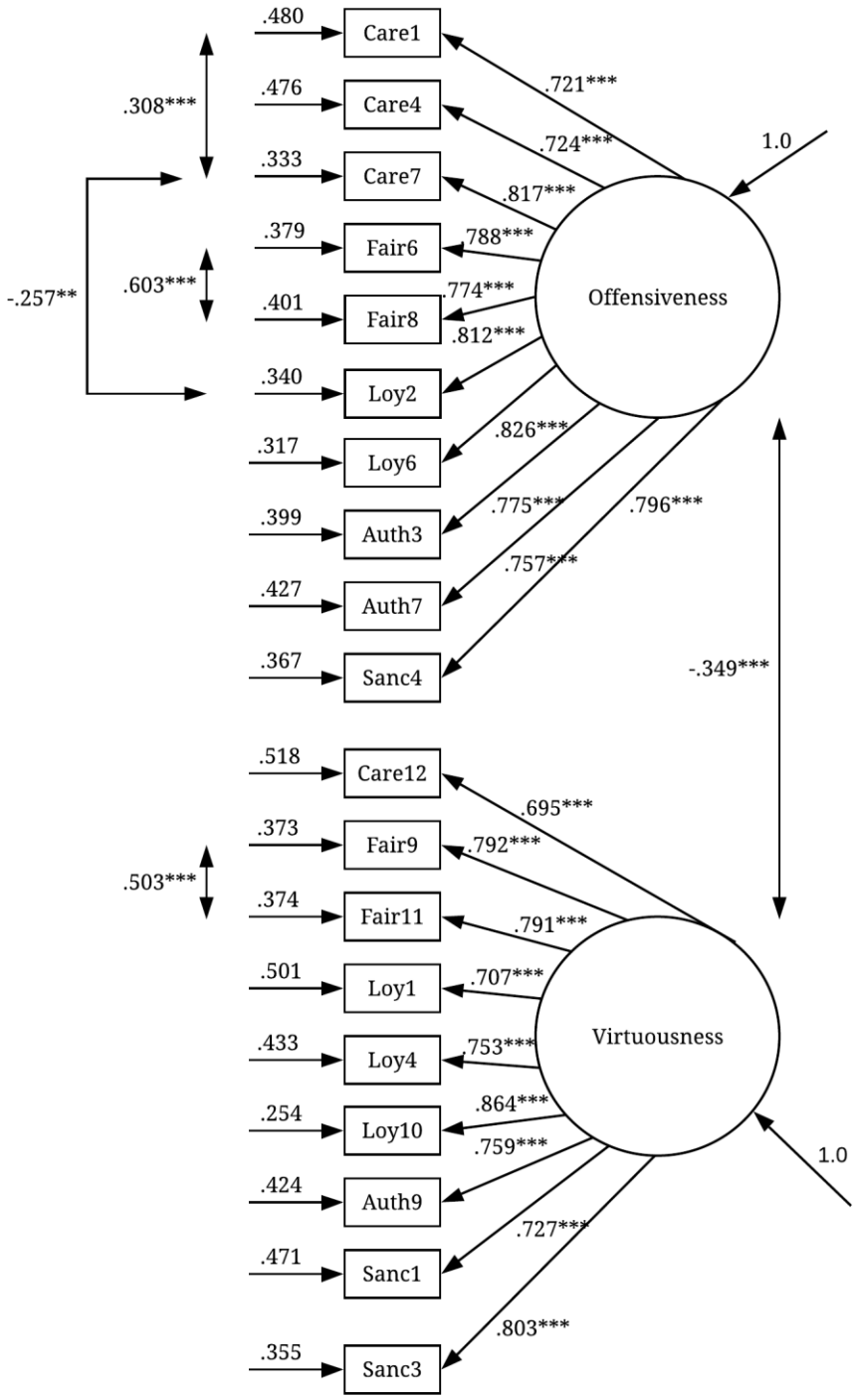
Figure 3.10: Final Items in Measures of Offensiveness and Virtuousness

Offensiveness	Virtuousness
CARE1 Megalane caused someone to suffer emotionally.	CARE12 Megalane made others safer.
CARE4 Megalane hurt someone's health.	FAIR9 Megalane was honest.
CARE7 Megalane was cruel.	FAIR11 Megalane acted fairly.
FAIR6 Megalane took advantage of someone.	LOY1 Megalane showed love for its country.
FAIR8 Megalane cheated someone.	LOY4 Megalane was loyal.
LOY2 Megalane did something to betray its people.	LOY10 Megalane was trustworthy.
LOY6 Megalane mistreated its people.	AUTH9 Megalane respected authority.
AUTH3 Megalane's actions caused chaos or disorder.	SANC1 Megalane acted in a way that God would approve of.
AUTH7 Megalane broke the law.	SANC3 Megalane acted in a pure and decent way.
SANC4 Megalane did something disgusting.	

To establish discriminant validity, the model was tested against another model with a single factor through CFA (*SRMR* = .198, *RMSEA* = .156, 90 CI [.148, .163], *CFI* = .666). In this case, the one factor model is nested within the two-factor model as a specialized case where correlations between factors are perfect. Therefore, a chi-square test is suitable to compare them. The model with two correlated factors was deemed superior and accepted compared to the model with one factor, χ^2 = 1057.625 (1), $p < .001$. The final model is available here as Figure 3.11.

These measures are designed to assess the threat to reputation from actions. Offensiveness should lead to decreased reputation while virtuousness should result in improved reputation. Therefore, the new measures were used to predict reputation to

Figure 3.11: Final Reputation Threat CFA



establish the criterion validity of the measures. The five-point measure of reputation (Coombs & Holladay, 2002) was used to represent reputation as it is commonly used in SCCT literature (Ma & Zhan, 2016).

The two-stage method of latent variable path analysis was used to assess the criterion validity of the measures. In stage 1, the latent factors were allowed to freely correlate in order to assess general fit and identify indicators that might need to cross load or correlate with one another. In stage 1, two of the ORP measures ("Megalane is concerned with the well-being of its publics." and "Under most circumstances, I would be likely to believe what Megalane says.") were identified as potentially cross-loading on the virtuousness factor. After review, the researcher decided that both statements should cross load on both virtuousness and reputation because both are about the perceived inherent goodness of an organization that mitigates reputation harm posed by crisis. Once these cross loadings were accepted, Stage 2 was conducted. In Stage 2, the specific model of relationship between the latent variables (Reputation is predicted by offensiveness and virtuousness) was tested. The resulting model was a good fit, *SRMR* = .062, *RMSEA* = .053, 90 CI [.046, .060], *CFI* = .953) and so it was accepted. Specifically, this model found that offensiveness had a large, negative, significant effect on reputation (standardized effect of -.634, $p < .001$) and virtuousness had a smaller, positive, significant effect on reputation (standardized effect of .409, $p < .001$). Therefore, criterion validity was established (see Figure 3.12).

In case future researchers want to aggregate these scales into an index, high reliability and construct validity of a composite of each scale was established. To

establish construct validity and reliability, methods from Fornell and Larcker (1981) were used. Composite reliability and average variance extracted were calculated (see Table 3.3). Composite reliability for each construct exceeded .925 and average variance extracted exceeded .58 for each measure, indicating a very reliable measure and distinct constructs. Construct validity can be established when reliability exceeds .7 and average variance extracted exceeds .5 (Xu, 2017). Therefore, this test established the construct validity and reliability of the measures.

Figure 3.12: Reputation Threat Measures Criterion Validity

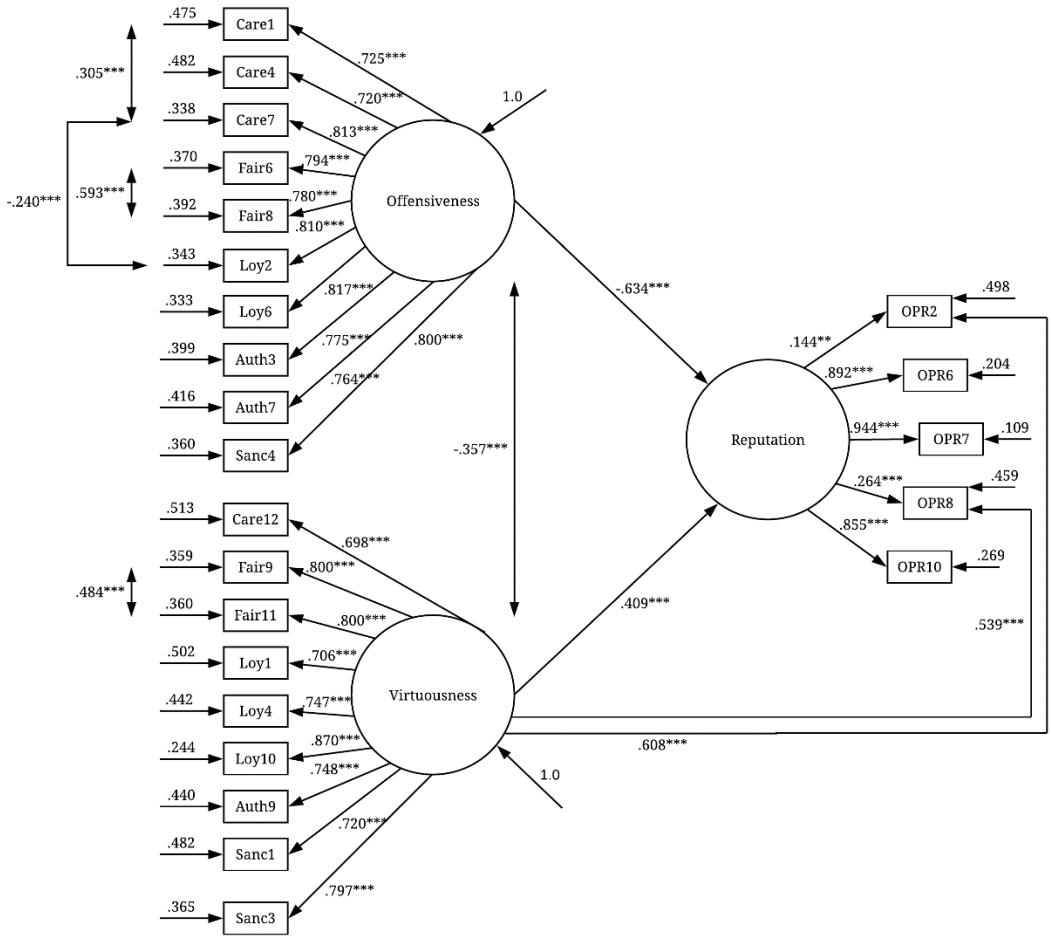


Table 3.3 Offensiveness Scale Reliability and Construct Validity

Latent Variable	Statement	Standardized Loadings	Explained Variance R^2	Composite Reliability	Average Variance Extracted (AVE)
Offensiveness	CARE1 Megalane caused someone to suffer emotionally.	0.721	0.520	0.939	0.608
	CARE4 Megalane hurt someone's health.	0.724	0.524		
	CARE7 Megalane was cruel.	0.817	0.667		
	FAIR6 Megalane took advantage of someone.	0.788	0.621		
	FAIR8 Megalane cheated someone.	0.774	0.599		
	LOY2 Megalane did something to betray its people.	0.812	0.659		
	LOY6 Megalane mistreated its people.	0.826	0.682		
	AUTH3 Megalane's actions caused chaos and disorder.	0.775	0.601		
	AUTH7 Megalane broke the law.	0.757	0.573		
	SANC4 Megalane did something disgusting.	0.796	0.634		
Virtuousness	CARE12 Megalane made others safer.	0.695	0.483	0.928	0.589
	FAIR9 Megalane was honest.	0.792	0.627		
	FAIR11 Megalane acted fairly.	0.791	0.626		
	LOY1 Megalane showed love for its country.	0.707	0.500		
	LOY4 Megalane was loyal.	0.753	0.567		
	LOY10 Megalane was trustworthy.	0.864	0.746		
	AUTH9 Megalane respected authority.	0.759	0.576		
	SANC1 Megalane acted in a way that God would approve of.	0.727	0.529		
	SANC3 Megalane acted in a pure and decent way.	0.803	0.645		

A final test sought to examine how offensiveness and attribution predict reputation. While necessity and sufficiency using QCA will be discussed in a later section, this test sought to validate the measures chosen using linear methods and

compare them to the traditional attribution approach. Hierarchical regression was used to make this assessment. First, the Coombs and Holladay's (2002) five-point reputation scale (α = .886), the Griffin, Babin, and Darden (1992) attribution scale (α = .899), the newly created offensiveness scale (α = .941), and the newly created virtuousness scale (α = .929) were each found to be reliable and summed. Reputation was regressed on attribution and the newly created scales separately before a hierarchical model considered if they should be used together. Attribution significantly predicted reputation by itself, R^2 = .248, $F(1, 336) = 110.931$, $p < .001$. The newly created offensiveness scales also predicted reputation by themselves without the attribution scale, R^2 = .737, $F(2, 335) = 468.372$, $p < .001$. Both offensiveness (β = -.507, $p < .001$) and virtuousness (β = .547, $p < .001$) independently contributed to reputation above and beyond the other. Finally, a stepwise hierarchical regression found that attribution did not significantly predict reputation above and beyond offensiveness and virtuousness, ΔR^2 = .001, $\Delta F(2, 333) = 3.712$, p = .055. Similarly, it found that adding the offensiveness only scales, ΔR^2 = .003, $\Delta F(2, 333) = .130$, p = .719, or the severity scales, ΔR^2 = .000, $\Delta F(1, 334) = .589$, p = .556, (Zhou, Ki, & Brown, 2017) did not significant predict reputation above and beyond offensiveness and virtuousness (see Tables 3.4 & 3.5). Therefore, the researcher concluded that the newly created scales do a significantly better job than attribution at predicting reputation threat and that measuring attribution alone is unnecessary if the newly created scales are also used.

RQ1b asked how violations of the different moral foundations impact offensiveness, while RQ1c asked about how the violations impacted the new

Table 3.4 Regression Tests Predicting Reputation

Test	*t*	*p*	*β*	*F*	*df*	*p*	R^2
Attribution Only				110.931	1,336	.000***	.248
Attribution	10.532	.000***	-.498				
Offensiveness Only				171.093	2,335	.000***	.505
Offensiveness	-12.216	.000***	-.486				
Virtuousness	10.226	.000***	.407				
Combined Scales				468.372	2, 335	.000***	.737
Offensiveness	-17.081	.000***	-.507				
Virtuousness	18.427	.000***	.547				
Severity				11.656	1,336	.001**	.034
Severity	-.3414	.001**	-.183				

Dependent variable in all tests is reputation represented by 5 item scale from Coombs and Holladay (2002).
*** p < .001

Table 3.5 Hierarchical Regression Predicting Reputation

Test	*R*	R^2	ΔR^2	ΔF	*df*	*p*
Combined Offensiveness and Virtuousness	.858	.737	.737	468.372	2,335	.000***
Attribution Only Included	.860	.739	.003	3.712	3,334	.055
Offensiveness Only Included	.859	.738	.001	.589	2,333	.556
Severity Included	.858	.737	.000	.130	1,334	.719

Dependent variable in all tests is reputation represented by 5 item scale from Coombs and Holladay (2002).
*** p < .001

measures of offensiveness. These questions anticipated that the exploratory factor analysis would break the dimensions of offensiveness according to moral foundations theory; however, that did not happen. Still, the stimuli provided two examples of violations of each moral foundation (Clifford et al., 2015). These foundations were compared using a one-way ANOVA testing reputation and the new offensiveness scales created among violations of the five moral foundations (see Tables 3.6 & 3.7). The control group was excluded from this analysis.

Reputation was significantly impacted by the moral foundation violated, $F(4,309) = 5.515$ $p < .001$. Both offensiveness, $F(4,309) = 15.801$ $p < .001$, and

virtuousness, $F(4,309) = 3.070$, $p = .017$, were also affected by the moral foundation violated (see Table 3.6).

Table 3.6: Moral Foundations One-Way ANOVAs

DV		SS	df	MS	F	Sig.
Reputation	Between	3111.635	4	777.909	5.515	.000***
	Within	43588.687	309	141.064		
	Total	46700.322	313			
Offensiveness	Between	41737.188	4	10434.297	15.801	.000***
	Within	204053.029	309	660.366		
	Total	245790.217	313			
Virtuousness	Between	4095.488	4	1023.872	3.070	.017*
	Within	103038.270	309	333.457		
	Total	107133.758	313			

*$p < .05$, **$p < .01$, *** $p < .001$

Table 3.7: Selected Tukey's Post Hoc Analysis

DV	Foundation	Foundation	Mean Difference	Std. Error	Sig.
Reputation	Care	Loyalty	-7.97262*	2.13568	.002**
	Fairness	Loyalty	-7.75269*	2.09230	.002**
	Authority	Loyalty	-6.53672*	2.17761	.024*
Offensiveness	Care	Loyalty	30.65424*	4.62083	.000***
		Sanctity	21.58644*	4.62083	.000***
	Fairness	Loyalty	23.15565*	4.52698	.000***
		Sanctity	14.08785*	4.52698	.017*
	Authority	Loyalty	27.77090*	4.71155	.000***
		Sanctity	18.70311*	4.71155	.001**
Virtuousness	Care	Loyalty	-9.14368*	3.28358	.045*

*$p < .05$, **$p < .01$, *** $p < .001$

Tukey's post hoc analysis confirmed that violations of loyalty/betrayal resulted in a significantly higher reputation than violations of care/harm ($p = .002$), fairness cheating ($p = .002$), and authority/subversion ($p = .024$). The offensiveness

dependent variable broke the five moral foundations into two homogenous subgroups. Care/harm, fairness/cheating, and authority/subversion grouped together (p = .479) with significantly more offensiveness than loyalty/betrayal and sanctity/degradation, which also grouped together (p = .282). Loyalty/betrayal resulted in significantly higher ratings in virtuousness than care/harm (p = .045). Table 3.7 has the significant post hoc results. Therefore, RQ1b and RQ1c were answered that violations of different moral foundations impact offensiveness and reputation, and we can infer that violations of specific foundations produce different results from violations of other foundations.

3.3.2 Response Message Scales

This dissertation created three distinct measures that assess instructing information (RQ3), adjusting information (RQ4), and reputation management messages (RQ2). Further, this research determined that each measure had face validity, discriminant validity, construct validity, reliability, and criterion validity. Each is discussed in turn.

Face validity was established by involving small groups of experts as suggested by Worthington and Whittaker (2006). Using interviews with 20 people with expertise in public relations and a review of literature (e.g., Coombs, 2007, 2015; Coombs & Holladay, 2002), a series of 32 statements intended to measure the different types of crisis response messages was developed (see Figure 3.13). Four public relations graduate students and one public relations professor then reviewed the measures and suggested revisions. Participants then rated each of these statements

on a scale from 0-10 (0 = strongly disagree, 10 = strongly agree). An initial exploratory factor analysis with PAF with varimax rotation and Kaiser normalization

Figure 3.13 Initial Statements Reviewed in Pilot

ID	Statement
INS1	Megalane informed people who could be hurt.
INS2	Megalane helped people know to get to safety.
INS3	Megalane told people how to protect themselves.
INS4	Megalane limited the damage to people and property with its message.
INS5	Megalane gave information to protect people who could be harmed.
INS6	Megalane gave information to protect people who could be harmed.
INS7	Megalane provided all information that it could to protect people.
INS8	Megalane volunteered safety information.
INS9	Megalane hid safety information during the event.*
ADJ1	Megalane helped people know it is back in control after the fire.
ADJ2	Megalane gave information to ease suffering after the event.
ADJ3	Megalane expressed sympathy for people harmed in the event.
ADJ4	Megalane provided emotional support for people involved.
ADJ5	Megalane showed concern for people involved.
ADJ6	Megalane helped people move forward after the event.
ADJ7	Megalane demonstrated its commitment to helping people involved.
ADJ8	Megalane hid information after the event.*
ADJ9	Megalane refused to help people emotionally.*
ADJ10	Megalane responded to people's needs after the event.
ADJ11	Megalane explained how it would help fix things.
ADJ12	Megalane avoided talking about helping people after the event.*
RMAN1	Megalane explained its actions well.
RMAN2	Megalane took the right amount of responsibility for the event.
RMAN3	Megalane acted responsibly.
RMAN4	Megalane blamed the responsible person or party.
RMAN5	Megalane accepted an appropriate amount of blame.
RMAN6	Megalane gave appropriate perspective on the event.
RMAN7	Megalane did the right thing for the organization.
RMAN8	I believe Megalane used an appropriate response.
RMAN9	I believe this response addressed any concerns raised about Megalane.
RMAN10	Megalane responded in a trustworthy way.
RMAN11	Megalane gave a sincere response.

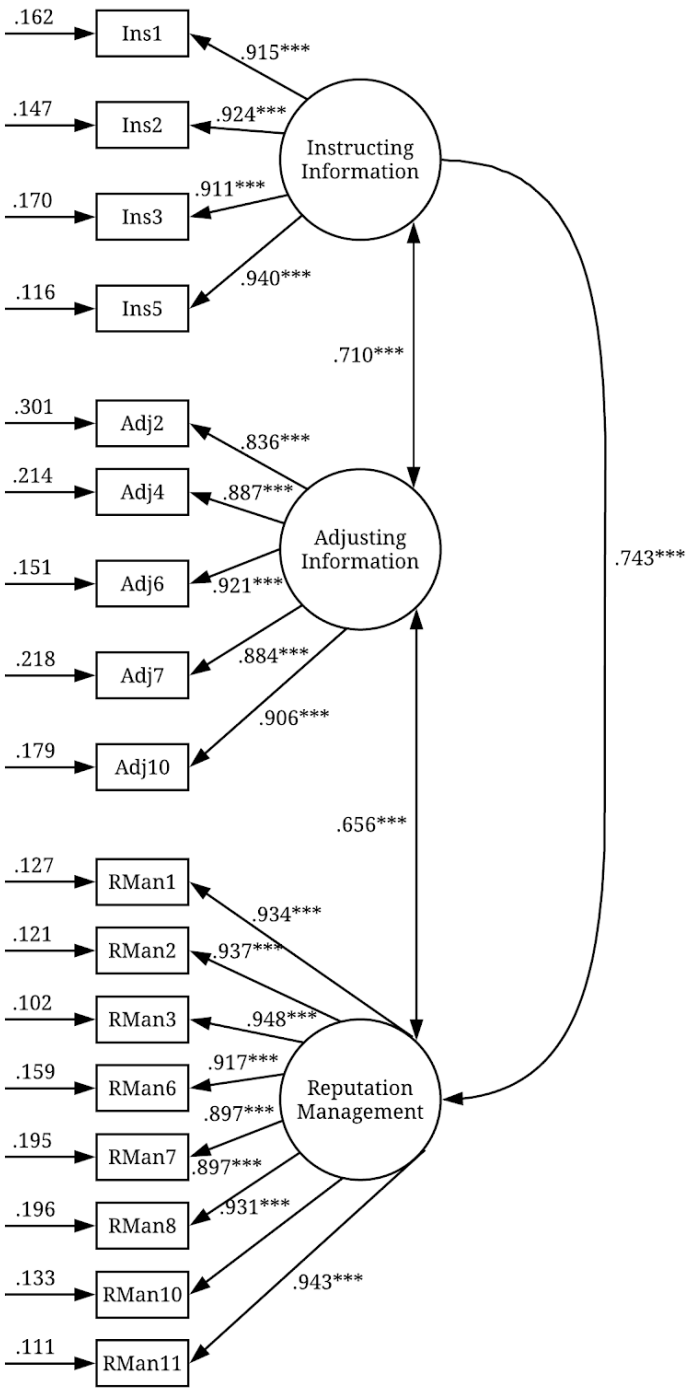
*Statement is reverse coded.
Codes at beginning of each statement (e.g., INS1) were used internally and not displayed to participants. They are included here for ease of reading.

separated the statements into instructing information, adjusting information, and reputation management messages with the three rotated factors explaining 67.87% of variance in all statements. Additional EFAs were conducted to allow the researcher to remove statements with high cross loadings and the resulting statements were placed into a final PAF with varimax rotation and Kaiser normalization. The three factors explained 83.90% of variation in the final 17 statements.

The resulting 17 statements were placed into a CFA with Satorra-Bentler correction. The resulting model was deemed a good fit, *SRMR* = .032, *RMSEA* = .044, 90 CI [.031, .056], *CFI* = .986. To establish discriminant validity, the model was tested against two other models, one with a single factor and one with two factors. The model with three correlated factors was compared to a model with one factor (*SRMR* = .121, *RMSEA* = .180, 90 CI [.171, .190], *CFI* = .753) and one with two factors (*SRMR* = .066, *RMSEA* = .125, 90 CI [.115, .134], *CFI* = .883). The two-factor model treated the base responses as one factor and the reputation management messages as a separate factor. In these cases, the two-factor and one-factor models are nested within the three- factor model as specialized cases where correlations between factors are perfect. Therefore, a chi-square test is suitable to compare them. The model with three correlated factors was deemed superior and accepted compared to the model with one factor, $\chi^2 = 1045.175$ (3), $p < .001$ and the model with two factors, $\chi^2 = 461.48$ (2), $p < .001$. The final model is available here as figure 3.14.

In case future researchers want to aggregate these scales into an index, high reliability and construct validity of a composite of each scale was established. To establish construct validity and reliability, methods from Fornell and Larker (1981)

Figure 3.14: Response Measures Final CFA



were used. Composite reliability and average variance extracted were calculated (see Table 3.8). Composite reliability for each construct exceeded .94 and average

Table 3.8 Response Measures Reliability and Construct Validity

Latent Variable	Statement	Loadings	Explained Variance R^2	Composite Reliability	Average Variance Extracted (AVE)
Instructing Information	INS1 Megalane informed people who could be hurt.	0.915	0.838	0.958	0.851
	INS2 Megalane helped people know to get to safety.	0.924	0.853		
	INS3 Megalane told people how to protect themselves.	0.911	0.83		
	INS5 Megalane gave information to protect people who could be harmed.	0.94	0.884		
Adjusting Information	ADJ2 Megalane gave information to ease suffering after the event.	0.836	0.699	0.949	0.787
	ADJ4 Megalane provided emotional support for people involved.	0.887	0.786		
	ADJ6 Megalane helped people move forward after the event.	0.921	0.849		
	ADJ7 Megalane demonstrated its commitment to helping people involved.	0.884	0.782		
	ADJ10 Megalane responded to people's needs after the event.	0.906	0.821		
Reputation Management	RMAN1 Megalane explained its actions well.	0.934	0.873	0.98	0.857
	RMAN2 Megalane took the right amount of responsibility for the event.	0.937	0.879		
	RMAN3 Megalane acted responsibly.	0.948	0.898		
	RMAN6 Megalane gave appropriate perspective on the event.	0.917	0.841		
	RMAN7 Megalane did the right thing for the organization.	0.897	0.805		
	RMAN8 I believe Megalane used an appropriate response.	0.897	0.804		
	RMAN10 Megalane responded in a trustworthy way.	0.931	0.867		
	RMAN11 Megalane gave a sincere response.	0.943	0.889		

variance extracted exceeded .78 for each measure, indicating a very reliable measure. Construct validity can be established when reliability exceeds .7 and average variance extracted exceeds .5 (Xu, 2017). Therefore, this test established the construct validity and reliability of the measure.

Coombs (2015) suggests these messages will influence reputation of an organization in crisis. Thus, this dissertation hypothesized instructing information (H3a), adjusting information (H3c), and reputation management messages (H2a) would each impact reputation. Therefore, the new measures were used to predict reputation to establish the criterion validity of the measures. The five-point measure of reputation (Coombs & Holladay, 2002) was used to represent reputation as it is commonly used in SCCT research (Ma & Zhan, 2016). Instructing information (α = .958), adjusting information (α = .948), reputation management (α = .979), and reputation (α = .912) were each deemed reliable, so each was summed.

Reputation was regressed on instructing information, adjusting information, and reputation management messages. Taken together, the three messages explained a significant amount of variance in reputation, R^2 = .774, $F(3, 282) = 322.173$, $p < .001$. Reputation management messages, β = .770, t (284) = 18.810, $p < .001$, and adjusting information, β = .094, t (284) = 2.344, p = .020 each predicted variation above and beyond the other variables. Instructing information, β = .063, t (284) = 1.431, p = .153 (see Table 3.9), did not predict reputation above and beyond the other variables. Therefore, criterion validity of the measures was accepted. Further, H2a and H3c were confirmed, while H3a was not confirmed.

Table 3.9 Regression Tests Predicting Reputation

Test	*t*	*p*	*β*	*F*	*df*	*p*	R^2
All 3 Messages				322.173	3,282	.000***	.774
Instructing Information	1.431	.153	.063				
Adjusting Information	2.344	.020*	.094				
Reputation Management	18.810	.000***	.770				

Dependent variable in all tests is reputation represented by 5 pt OPR from Coombs and Holladay (2002)
*p < .05, **p <.01, *** p < .001

3.3.3 Qualitative Comparative Analysis.

H1a and H1b hypothesized that attribution (H1a) and offensiveness (H1b) were each necessary for a reputation threat to exist, while H1c and H1d hypothesized that attribution (H1c) and offensiveness (H1d) were sufficient for a reputation threat to exist. Finally, H1e and H1f hypothesized that a combined measure of reputation threat was necessary (H1e) and sufficient (H1f) for a reputation threat to exist. A fsQCA with data from the reputation threat part of the pilot was undertaken to assess these hypotheses. This research used each of the 338 participants from the reputation threat portion of the pilot as unique cases.

Six questions derived from Coombs and Holladay's (2002) reputation measure asked how likely participants were to change their opinion of Megalane based upon the scenario they read (see Appendix B). The six items were found to be reliable (α = .980) so they were summed. The offensiveness (α = .941) and attribution (α = .899) scales were also summed.

The direct method was used for calibration. Software from Ragin and Davey (2016) was used to calibrate the scores and test sufficiency and consistency. The

software requires the researcher to set thresholds where the score is .95, .5, and .05. It then mathematically computes the rest of the scores using log odds of group membership. In some cases, a researcher will use the distribution of results to choose anchor points; however, that method was rejected in this case because this study asked participants to give their perception of offensiveness, attributed responsibility, and intent to change their views of the organization. The survey questions provided an unambiguous way to reflect those views. Therefore, the researcher chose calibration anchor points based upon an intuitive reading of the meaning of the scales before examining the results.

The attribution scale had a range of 0-40, with a higher value indicating more attributed responsibility. A score of 20 would reflect an average of a of a neither strongly agree nor disagree to each scale item (e.g., Megalane was responsible for the event) so it was named the midpoint. Scores well above 20 would indicate strong attributed responsibility to the company and well below 20 would indicate strong disagreement with attributed responsibility to the company. Therefore, scores above 28 were labeled a .95 in the software, while scores below 12 were labeled a .05. The rest of the scales were filled in by the software (Ragin & Davey, 2016).

The offensiveness only scale had a range of 0-100, with a higher value indicating more offensiveness. A score of 50 would reflect an average of a neither strongly agree nor disagree to each scale item (e.g., Someone was cruel). For something to be at all offensive, it was decided the score had to be well above this number. Therefore, a score of 50 was labeled .05 and 58 was named the midpoint.

Scores of 66 were labeled a .95, since a score this high definitely indicated an offensive act had occurred (see Tables 3.10 & 3.11).

The reputation change scale had a range of 0-60, with a higher value indicating the event made a person more likely to support the organization in some way (e.g., Trust Megalane). A score of 30 would reflect an average response suggesting the person's view of the organization remained unchanged as a result of the event. For that reason, it was decided that a reputation threat required a score much lower than thirty. Therefore, a score of 26 was labeled .05 and 18 was named the midpoint. The .95 marker was set at 10, since a score this low definitely indicated reputation change had occurred (see Tables 3.10 & 3.11).

Table 3.10: QCA Calibration

Value	Attribution	Offensiveness	Reputation Threat
.05	12	50	26
0.5	20	58	18
.95	28	66	10

Table 3.11: Sample of Calibrated Data

Attribution	Calibrated	Offense	Calibrated	Reputation	Calibrated
2	0	3	0	35	0
23	0.75	52	0.1	31	0.01
34	0.99	10	0	21	0.25
24	0.82	35	0	17	0.59
20	0.5	75	1	16	0.68
20	0.5	59	0.59	15	0.75
19	0.41	61	0.75	14	0.82
40	1	80	1	12	0.9
40	1	66	0.95	9	0.97

Using software from Ragin and Davey (2016), the researcher computed consistency of necessary conditions for attributed responsibility (.79), offensiveness

(.59), and attributed responsibility AND offensiveness (.88). None of these measures were above .9 so necessity was not established for any of the measures. H1a, H1b, and H1e were not supported. Further, using the software from Ragin and Davey (2016) as outlined in the methods section, the researcher computed consistency of sufficient conditions for attributed responsibility (.58), offense (.63), the presence of neither (.32) and the presence of both (.90) (see Table 3.12). Only presence of both conditions was above the .8 threshold so sufficiency of attributed responsibility and offensiveness individually was not established, but the combination of the two was determined to be sufficient for a reputation threat to exist. Therefore, H1c and H1d were not supported, but H1f was supported. Further, because the reputation threat was found sufficient, coverage was calculated. Coverage explains what percentage of cases of the outcome are explained by the sufficient condition. Coverage was found to be .50, suggesting that the sufficient condition of offense and attributed responsibility accounts for half of all cases where a reputation threat exists as a result of a crisis. A scatterplot confirms this finding of consistency (see Figure 3.15).

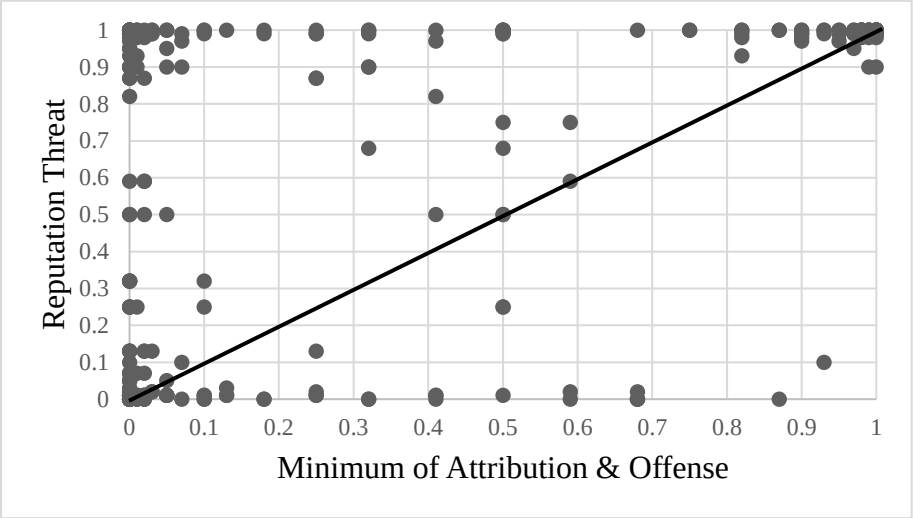
Table 3.12: Truth Table Testing Sufficiency

Attribution	Offensiveness	Count	Raw Consistency
Yes	Yes	98	0.90
Yes	No	93	0.58
No	Yes	31	0.63
No	No	77	0.32

3.3.4 Model of Reputation Repair.

To examine the model of reputation repair with the pilot data and answer hypotheses that suggested instructing information (H3b), adjusting information (H3d), and reputation management messages (H2b) would each impact reputation through attributed responsibility, the researcher used mPlus to assess a model where

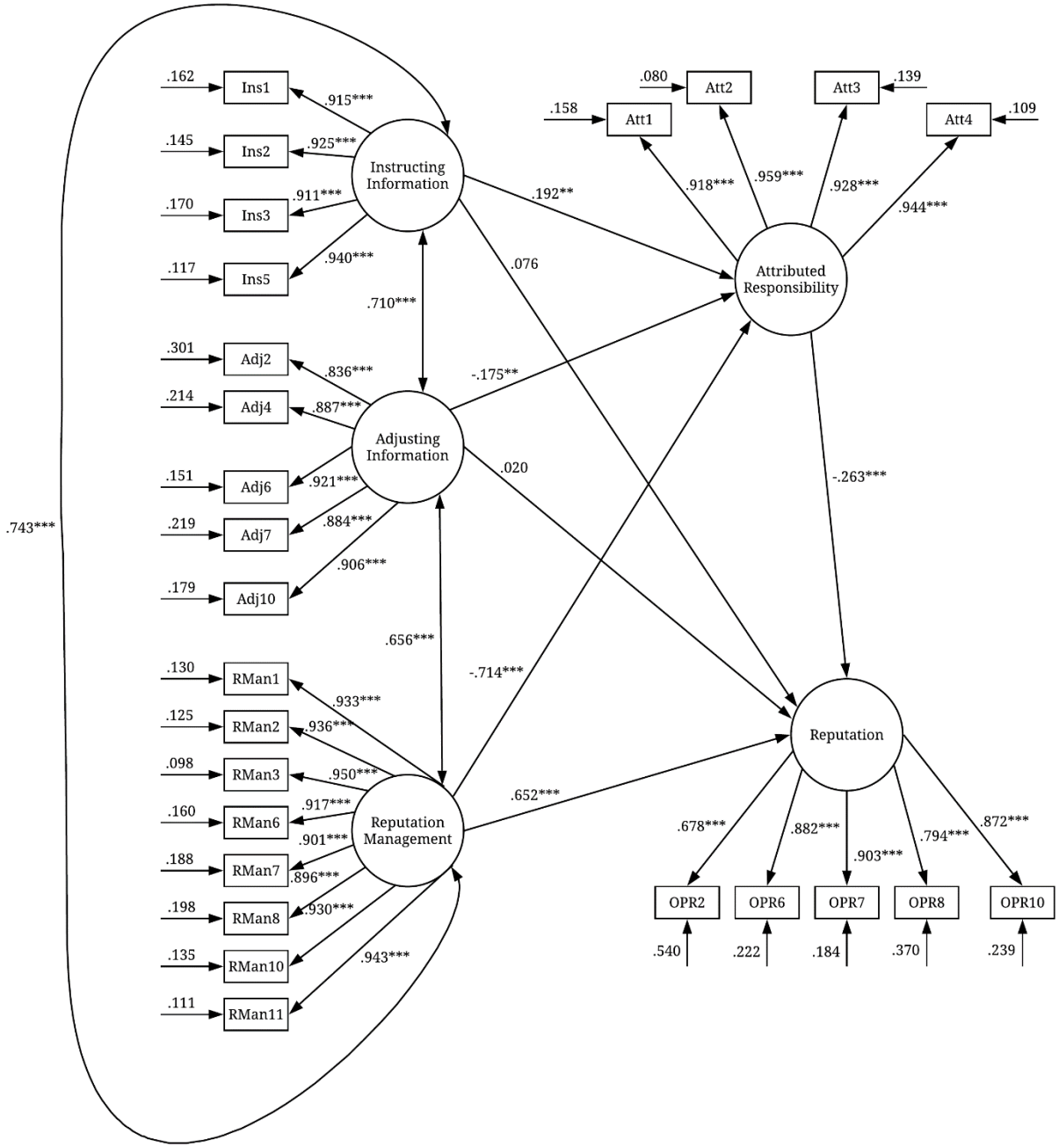
Figure 3.15: Scatterplot Sufficiency Test of Consistency



attribution mediates the relationship between instructing information, adjusting information, and reputation management messages and reputation. The five-scale point measure from Coombs and Holladay (2002) was used to measure reputation (e.g., "Megalane is concerned with the well-being of its publics."), while four items from Griffin, Babin and Darden (1992) was used to measure attribution (e.g., "Megalane was responsible for the event."). The resulting model was a good fit, *SRMR* = .040, *RMSEA* = .049, 90 CI (.042, .057), *CFI* = .972, without any additional correlations or changes and so it was accepted. Further, attribution partially mediated the relationship between reputation management messages and reputation. The path diagram in Figure 3.16 makes clear that reputation management messages have a significant standardized negative effect on attributed responsibility (-.714) and a significantly positive standardized effect on reputation (.652). Further, attribution (-.263) predicts a less favorable reputation as well. Therefore, hypothesis H2b was supported. In addition, instructing information (.192) increased attribution, while having no direct effect on reputation, while adjusting information (-.175) decreased

attribution while having no direct effect on reputation. In other words, attribution mediated the relationship between both base crisis responses and reputation. Therefore, H3b and H3d were supported.

Figure 3.16 Model of Reputation Repair



Chapter 4: Pilot Discussion - The Model of Reputation Repair

The pilot created five new measures of crisis (offensiveness, virtuousness, instructing information, adjusting information, and reputation management messages) and established the sufficiency of the combination of attribution and offensiveness for a reputation threat to be present following a crisis. Further, the pilot tested the model of reputation repair with the three measures of crisis response strategies and found it to be a good fit; however, the discovery of the new reputation threat measures of offensiveness and virtuousness and the tests that showed these measures were better predictors of reputation threat than attribution alone or the other measures tested suggested a revision to the model of reputation repair was necessary. This section discusses the pilot's findings and poses further hypotheses for the main experiment.

4.1 Crisis Reputation Threat

This dissertation set out with the intention to understand the reputation threat posed by crisis situations. Image repair theory (Benoit, 1995, 1997) argues that a crisis threat requires both attributed responsibility and offensiveness, while SCCT (Coombs, 2015; Coombs & Holladay, 2002) argues that attributed responsibility is only required. To assess this suggestion, this dissertation used two methods. First, it conducted a fsQCA. Second, it developed continuous measures that assessed both offensiveness and attribution together and compared them with each separately. Each of these methods is discussed in turn.

4.1.1 Qualitative Comparative Analysis

fsQCA is a set-theoretric method used for determining asymmetrical causality. The method is used in many social sciences, but not commonly used in

Communication. However, it is a method that future researchers should consider for their studies for a few reasons. First, it is a hybrid method that combines many of the benefits of qualitative and quantitative research. Further, QCA enables researchers to conduct studies with small datasets and is not constrained by the assumptions of linear relationships between variables. Finally, QCA is conducted with transparent, accessible statistics that can still consider the complexity of many different variables interacting together (Schneider & Wagemann, 2012).

In this dissertation, the fsQCA did not establish that attributed responsibility or offensiveness was a necessary condition for a reputation threat to exist. However, it did establish that the combination of attributed responsibility and offensiveness was a sufficient cause for a reputation threat to exist. In other words, if an organization has attributed responsibility for something offensive, a reputation threat will exist. However, the coverage number of .5 is moderate, suggesting there are other routes to a reputation threat other than just the combination of attributed responsibility or offensiveness. This finding that both are important is confirmed with linear methods.

4.1.2 Linear Methods

The linear methods clearly established that both attributed responsibility and offensiveness contribute to understanding of the reputation threat posed by crisis. Across 10 different crisis scenarios and a control group, attributed responsibility only predicted 24.8% of the variation in reputation, while the newly created measures that combined both attributed responsibility and offensiveness predicted 73.7% of the variation in reputation. Further, once these measures were included, measures of attribution did not add a statistically significant difference to the understanding of

reputation. In spite the crisis literature that is increasingly using an SCCT framework (Avery, Lariscy, Kim & Hocke, 2010), this finding gives credibility to image repair's approach to crisis. Image repair incorporates offensiveness (Benoit, 1997), as opposed to SCCT's emphasis on attributed responsibility (Coombs & Holladay, 2002). This research provides robust measurements of crisis offensiveness combined with attribution that can be used for further research into this topic.

In developing these measures, the researcher was mindful of buffering effects that appeared to prevent crisis situations from threatening reputations (Richards et al., 2017) and looked specifically for a theory that could explain why different people hold different perspectives. A literature review found moral foundations theory as a new development in moral psychology that is explaining why people have different perspectives on the world (Haidt & Joseph, 2004; Graham et al., 2009). For that reason, this dissertation initially developed potential items to measure offensiveness based upon moral foundations theory and even used some statements directly from the moral foundations questionnaire (MFQ) developed by moral psychologists to assess why people perceive different actions as offensive.

Accordingly, the researcher expected that EFA would easily separate the statements into the five moral foundations (Graham et al., 2011). But that did not happen. Rather, the initial EFA, and several others like it, continued to break the results out into offensiveness (e.g., "Megalane was cruel") and virtuousness (e.g., "Megalane made others safer"). There are two underlying reasons that this appears to have happened. First, violations of the individual moral foundations appear to

correlate very highly, and, second, virtuousness does not exist on the same dimension as offensiveness. Each is discussed in turn.

4.1.2 Moral Foundations Correlate

First, violations of the individual moral foundations appear to correlate very highly. Indeed, the measures of moral foundations correlate so highly that each of the very reliable measures created in this study include at least one statement representing each moral foundation. This result is different than the result of researchers developing the MFQ (Graham et al., 2009, 2011), which cleanly separated the foundations. Why did they correlate in this study when they did not seem to correlate in the validation of the MFQ?

The researcher's opinion is that the answer is in the nature of the adjustment from abstract moral dilemmas (Graham et al., 2009) to witnessing a single violation committed by an organization. All of the MFQ questions exist in a vacuum. Individuals are asked what influences their thinking or given unique hypothetical scenarios with each scale item. In contrast, participants in this experiment read about an organization that did something offensive and then were asked to answer a questionnaire about that organization. In this experiment, they were given many different ways in which the organization could have offended them and asked how much they agreed with each. What seems obvious to the researcher now is that people offended by an organization will likely see negative in that organization's actions across the boundaries understood by moral psychologists. For instance, once an organization is perceived to have harmed someone, that action can be described as disgusting, disloyal, or cruel, even though each of these descriptors is code to moral

psychologists for a different moral foundation. Further, the researcher speculates that there may be an indirect effect operating in the scale as well.

Once a person is upset with an organization over a specific act, they might be more likely to agree with another negative statement about the organization, even if it is not a perfect fit. For example, the act of one person harming another could also be called disloyal, even though the people share no specified relationship. The more upset the person, the more likely participants may be to force a negative descriptor like disloyal to fit a situation. Some might suggest this indirect effect is a weakness with these newly created scales, but the researcher believes it makes them more realistic and useful. The scales measure the moral offenses directly and then indirectly measure how upset with an organization participants are as a result of a crisis. This indirect effect can operate even without requiring the participants to entirely understand how they are feeling themselves. Given that crisis is by nature a very emotional and intense circumstance (Jin, Pang, & Cameron, 2012), the ability to measure offensiveness in this way is particularly valuable. Whether or not this potential indirect effect is real, the data supports these scales very strongly.

4.1.3 Virtuousness' New Dimension

The second reason for the surprise structure is also very interesting. Positives and negatives in crisis communication do not exist along the same dimension. While some statements were originally designed to be reverse-coded, it quickly became apparent that they did not exist along the same continuum. Rather, they were a separate dimension of virtuousness. The first instinct of the researcher was to assume these reflected participants who had quickly clicked through the survey without

reading the questions, thus skewing the data. However, this explanation was quickly discarded because participants had passed five separate reading check questions and EFA would have placed the responses along the same continuum, just with negative loadings.

Instead, the researcher realized that the data were screaming what public relations scholars already know – virtuousness can mitigate harm resulting from a crisis (Coombs & Holladay, 2006). Indeed, SCCT and image repair already suggest bolstering as a potential response strategy in which an organization reminds stakeholders of its virtuousness (Benoit, 1995; Coombs, 2015). SCCT also suggests an organization should act to protect stakeholders through base crisis responses, which is related to this concept. Further, a recent crisis research study has even identified the existence of buffering effects, which prevent reputational harm to an organization, and called for more research into these buffering effects (Richards et al., 2017). This dissertation has confirmed that buffering effects can exist and created measures to empower more research to examine the topic.

4.2 Crisis Response Messages

This dissertation built valid, reliable measures of crisis response strategies and then incorporated them into the revised model of reputation repair. As a result, this dissertation explains there are benefits to continuously measuring crisis response strategies and provides benefits in resulting effect sizes from crisis research. Finally, it provides context for research examining the base crisis responses. Each of these ideas is discussed in turn.

4.2.1 Measuring Crisis Response Strategies

To date, research into crisis response strategies has generally defined a response strategy and then measured its outcomes (Ma & Zhan, 2016). But this practice has hidden the size of the effects of post-crisis reputation management messages on reputation (Coombs, 2016). This dissertation demonstrates that response strategy (or posture) is not the only variable aspect of a reputation management message. Rather, other factors within these responses clearly influence reputation. This research does not identify these specific factors, though giving factual information that increases perceived truthfulness and rhetorical actions that increase perceived sincerity both appear to be low-hanging fruit based upon the scale items. It is up to future scholars to find out what those factors are. Fortunately, these measures will empower researchers to do so. For instance, scholars can take the measures of reputation management messages as a dependent variable and see how it changes when various aspects of response messages are manipulated or among different audiences with intergroup bias (Hewstone, Rubin, & Willis, 2002; Tajfel, 1982).

Further, the measures developed in this research will enhance future research into the base crisis responses. Researchers are now beginning to study the base crisis responses (e.g., Kim & Sung, 2014; Park, 2017). The measures developed in this dissertation will assist them by providing scholars with the ability to measure the stimuli they developed for their studies. These measures are different because they are continuous rather than treating a base response as present or not. Thus, these measures allow researchers to distinguish between very good base crisis responses and moderate base crisis response and to see how these perceived differences impact

reputation or other dependent variables. This dissertation has already demonstrated that such measures help researchers identify the increased effects of reputation management messages. Future researchers can gain a similar benefit for studies of base crisis responses, or at least have effective manipulation checks on their crisis response stimuli.

4.2.2 The Revised Model of Reputation Repair Proposed

Based upon the newly created measures, the proposed model of reputation repair was revised to incorporate the new measures of offensiveness and virtuousness (see Figure 4.1). Therefore, RQ6 is proposed as described below, along with the following hypotheses. These questions include asking whether the model of reputation repair will change depending upon different situations.

RQ6: How can the model of reputation repair be revised to incorporate the new elements of offensiveness and virtuousness?

H5a: Instructing information will have a direct, positive effect on reputation.

H5b: Adjusting information will have a direct, positive effect on reputation.

H5c: Reputation management messages will have a direct, positive effect on reputation.

H5d: Offensiveness will have a direct, negative effect on reputation.

H5e: Virtuousness will have a direct, positive effect on reputation.

H6a: Instructing information will have a direct, negative effect on offensiveness.

H6b: Adjusting information will have a direct, negative effect on offensiveness.

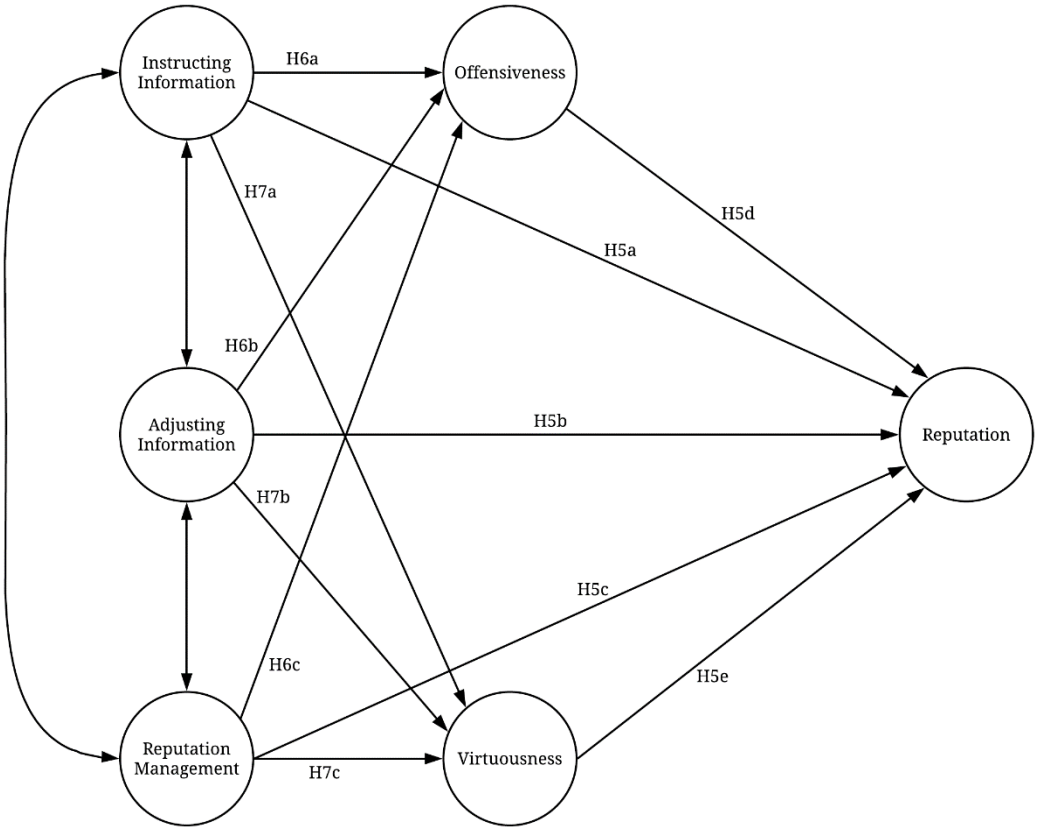
H6c: Reputation management messages will have a direct, negative effect on offensiveness.

H7a: Instructing information will have a direct, positive effect on virtuousness.

H7b: Adjusting information will have a direct, positive effect on virtuousness.

H7c: Reputation management messages will have a direct, positive effect on virtuousness.

Figure 4.1: Proposed Revised Model of Reputation Repair



Chapter 5: The Revised Model of Reputation Repair

Based upon the results of the pilot, an experiment was devised to assess the proposed revised model of reputation repair. This chapter reviews the methods for this experiment, provides results of the experiment, and discusses the findings of the experiment.

5.1 Experiment Method

A sample of 1,277 U.S. adults were recruited through mTurk for a 2 (crisis types: rumor or organizational misdeed) x 2 (offensiveness: high or low) x 2 (instructing information: yes or no) x 2 (adjusting information: yes or no) x 2 (crisis response: denial or rebuilding) experiment to answer the research questions and hypotheses. After discarding responses that did not complete the full experiment and those that failed one or more attention checks (described in 5.1.2), the total number of responses was 1,000. Power analysis was conducted using a sample size calculator from Free Statistics Calculators (Soper, 2017). Assuming observed measures of attribution (4), offensiveness (19), instructing information (4), adjusting information (5), reputation management (8), and organization reputation (5), a minimum effect size of .15, and desired power of .8, a sample size of 742 is needed. Therefore, this sample was of acceptable size.

After accepting the mTurk HIT, participants entered a Qualtrics survey and were randomly assigned to read one of two variations of a story about a fictional company called Megalane whose building burnt down. This story is fitting because it allows for the cause of the fire, extent of damage, and crisis responses to be manipulated in convincing ways (see Appendix C for the stimuli and survey

instrument). The entity was fictional as suggested by Coombs (2016) in order to prevent prior crisis history and prior reputation from impacting results. This story was developed from a similar story that appeared in the *Washington Post* (Coombs, 2016; Williams, Ruane, & Silverman, 2017).

First, participants read a story about the company's building burning down with a manipulated amount of damage. One group read the fire killed three people, put several in the hospital, and caused $10 million in damages, while the other group read that everyone inside escaped the fire and that it caused minimal financial damage. Participants were then randomly assigned to read vignettes in which Megalane provided or did not provide instructing information and adjusting information during and after the crisis. The vignettes all said the CEO was one of the first to be notified of the fire. In the instructing information provided scenario, the CEO got on the intercom, notified the staff of the fire, and encouraged an orderly exit. In the no instructing information scenario, the CEO simply evacuated without speaking to anyone else. Adjusting information was manipulated to be present by having the company notify employees about counseling services that were available. In the no adjusting information condition, participants did not read anything about counseling services.

Next participants were randomly assigned to read one of two reasons the building burnt down. In the first variation, participants read a rumor type crisis (Coombs, 2015). This variation is a victim type crisis for which SCCT suggests using denial (Coombs, 2015). The victim crisis was operationalized as a false rumor that the company started the fire. This rumor was clearly identified as false and lightning was

instead identified as the real cause of the fire. In the second variation, participants read a preventable type crisis. The preventable crisis was operationalized as the fire being started by the organization's CEO in order to collect insurance money for the company's shareholders.

Participants were then randomly assigned to read one of two crisis responses. Participants read a denial or an apology for the fire from the company. Participants then answered a series of questions. They answered the attribution questions developed by Griffin, Babin, and Darden (1992), the offensiveness and virtuousness scales developed in pilots 1 and 2, reputation management questions (Coombs & Holladay, 2002), and demographic questions (see Appendix C for full survey instrument). Results were analyzed using latent variable path analysis in mPlus to test if the model fits the data collected using the criteria established by Hu and Bentler (1999). Hu and Bentler (1999) propose thresholds of CFI $\geq$ .95, RMSEA $\leq$ .06, and SRMR $\leq$ .08.

5.1.1 Experiment Manipulation Checks

Responses from the 286 pilot participants assessing crisis response strategies were used to provide manipulation check of stimuli in part 3. The measure from Zhou, Ki, and Brown (2017) was used to assess if the severity of the crisis was effectively manipulated. The 11 statements were reliable (α = .940) so they were summed. A one-way ANOVA found a statistically significant difference between cases with high severity and low severity without holding any of the other conditions constant, $F(285) = 4.054$, $p = .045$, $\eta^2 = .014$. Therefore, the manipulation was accepted.

The final scale for instructing information was used to assess whether instructing information was manipulated. The scale was deemed a reliable measure (α = .961) so it was summed. A one-way ANOVA found a statistically significant difference between cases with instructing information and cases without instructing information, $F(285) = 237.299$, $p < .001$, $\acute{\eta}^2 = .455$. Therefore, the manipulation was accepted.

The final scale for adjusting information was used to assess whether adjusting information was manipulated. The scale was deemed a reliable measure (α = .933) so it was summed. A one-way ANOVA found a statistically significant difference between cases with adjusting information and without adjusting information, $F(285) = 44.281$, $p < .001$, $\acute{\eta}^2 = .135$. Therefore, the manipulation was accepted.

The final scale for reputation management messages was used to assess whether crisis response strategy was manipulated. The scale was deemed a reliable measure (α = .967) so it was summed. Participants who evaluated the three strategies used in the pilot but not in the experiment (justification, victimage, and reminder) were not included for this manipulation check because those three responses were not used in the final experiment. The key focus of the statements was measuring whether responses were appropriate to the situation, so the scenario of the crisis was also included in the manipulation check. A two-way ANOVA found a statistically significant interaction effect between crisis scenario (victim vs. preventable) and response strategy (denial vs. apology), $F(112) = 4.817$, $p = .030$, $\acute{\eta}^2 = .043$. Therefore, the manipulation was accepted, and denial was considered a matched response with

the victim crisis, while apology was considered a matched response with the apology crisis.

5.1.2 Attention Checks

To ensure data quality, the experiment included five attention checks where the participant was directed to answer a specific way (Sheehan & Pittman, 2016). For instance, one scale item said, “Select strongly agree to prove you are reading” instead of another statement the participant could rate. In cases where participants failed to answer an attention check correctly, the HIT was rejected and their response was discarded.

5.1.3 Latent Variable Path Analysis Multigroup Analysis

To assess whether the model changed in subgroups, the three-stage method outlined by Byrne (1991) was used. In stage one, each subgroup was tested individually to see if the model fit each subgroup individually. If the model fit each subgroup individually, then stage two was performed. In stage two, the subgroups were tested together; however, none of the paths were constrained to be identical. If the model fit in stage two, then stage three was performed. In stage three, the structural effects between the latent variables were constrained to be equal. Significance tests were performed on these paths to see if releasing any of the constraints resulted in a significantly better fit ($p < .05$). If a significant difference was present, the constraint with the largest effect was released and model fit was tested again. Constraints were released until no significant differences existed. Structural effects where constraints were released in stage three can be understood to

be unequal, meaning that the subgroups have significantly different structural effects on the unconstrained paths (Byrne, 1991).

5.2 Experiment Results

The experiment tested the matching construct of SCCT and the revised model of reputation repair built upon scales this dissertation developed to measure instructing information, adjusting information, reputation management messages, crisis offensiveness and mitigating virtuousness that help an organization's reputation. These newly created measures, and the final model, demonstrated large total effects from reputation threat and crisis response on post-crisis reputation, while the SCCT matching construct explained only a small amount of variance in reputation. This section describes the tests of the matching construct and the test of the revised model of reputation repair. Finally, this section reviews subgroups within the revised model of reputation repair and how the model changed in certain circumstances.

5.2.1 SCCT's Matching Construct

H4 asked whether using instructing information (H4a), adjusting information (H4b), and SCCT's matched responses (H4c) results in significantly improved post-crisis organizational reputation. Further, H4 asked whether instructing information (H4d), adjusting information (H4e), and SCCT's matched responses (H4f) results in significantly decreased attributed responsibility. Results from the experiment were used to answer these questions. The five-item reputation scale from Coombs and Holladay (2002) was deemed reliable (α = .919) so it was summed. Further, cases with a denial response to a victim crisis or an apology response to a preventable crisis

were coded as matched responses, while cases with a denial response to a preventable crisis or an apology response to a victim crisis were coded as mismatched.

A three-way ANOVA found a statistically significant effect of instructing information, adjusting information, and reputation management messages on reputation (R^2 = .148). The ANOVA found no statistically significant interaction between any combination of instructing information, adjusting information, or reputation management messages, F (7, 992) ≤ 1.261, $p \geq .262$, $\acute{\eta}^2 \leq .001$. The

Table 5.1 ANOVA Testing Effects of Message Types on Reputation

Source	***SS***	***df***	***MS***	***F***	***Sig.***	$\acute{\eta}^2$
Corrected	33820.836[a]	7	4831.548	24.625	.000	.148
Intercept	320401.946	1	320401.946	1632.982	.000	.622
Matching	1066.006	1	1066.006	5.433	.020	.005
Instructing	30874.517	1	30874.517	157.357	.000	.137
Adjusting	1838.948	1	1838.948	9.373	.002	.009
Matching * Instructing	10.659	1	10.659	.054	.816	.000
Matching * Adjusting	247.490	1	247.490	1.261	.262	.001
Instructing * Adjusting	7.731	1	7.731	.039	.843	.000
Matching * Instructing * Adjusting	42.356	1	42.356	.216	.642	.000
Error	194636.988	992	196.207			
Total	542598.000	1000				
Corrected Total	228457.824	999				

R^2 = .148

ANOVA did find a statistically significant effect for each of the message types above and beyond the others. Instructing information, F (1, 992) = 157.357, $p < .001$, $\acute{\eta}^2$ =.137, adjusting information, F (1, 992) = 9.373, p = .002, $\acute{\eta}^2$ = .009, and matched

responses, F (1, 992) = 5.433, p = .020, $\acute{\eta}^2$ = .005 (see Table 5.1). Therefore, H4a, H4b, and H4c were each supported, though the effect size for each was very small.

A three-way ANOVA found a statistically significant effect of instructing information, adjusting information, and reputation management messages on attributed responsibility (R^2 = .011). The ANOVA found no statistically significant interaction between any combination of instructing information, adjusting

Table 5.2 Effects of Message Types on Attributed Responsibility

Source	*SS*	*df*	*MS*	*F*	*Sig.*	$\acute{\eta}^2$
Corrected	2715.063[a]	7	387.866	1.636	.121	.011
Intercept	495477.495	1	495477.495	2090.185	.000	.678
Matching	486.771	1	486.771	2.053	.152	.002
Instructing	1140.488	1	1140.488	4.811	.029	.005
Adjusting	502.471	1	502.471	2.120	.146	.002
Matching * Instructing	58.062	1	58.062	.245	.621	.000
Matching * Adjusting	458.768	1	458.768	1.935	.164	.002
Instructing * Adjusting	88.720	1	88.720	.374	.541	.000
Matching * Instructing * Adjusting	10.391	1	10.391	.044	.834	.000
Error	235153.216	992	237.050			
Total	735649.000	1000				
Corrected Total	237868.279	999				

R^2 = .011

information, or reputation management messages, F (7, 992) ≤ 1.935, p ≥ .164, $\acute{\eta}^2$ ≤ .002. The ANOVA found a statistically significant effect for instructing information above and beyond the message types, F (1, 992) = 4.811, p = .029, $\acute{\eta}^2$ = .005. Adjusting information, F (1, 992) = 2.120, p = .146, $\acute{\eta}^2$ = .002 and matched responses, F (1, 992) = 2.053, p = .152, $\acute{\eta}^2$ = .002 (see Table 5.2) did not result in statistically

significant differences in attributed responsibility above and beyond each of the other message types. Therefore, H4d was supported, but H4e and H4f were not supported. The small effect sizes will be discussed in a later section.

5.2.2 Overall Model

Research questions 5 – 8 and hypotheses 5 – 7 concerned the revised model of reputation repair. This experiment used the newly created measurements to create a revised model of reputation repair and test these hypotheses. This model incorporates the newly created measurements of offensiveness and virtuousness alongside attribution and newly created measures of instructing information, adjusting information, and reputation management messages in place of response strategies (Coombs, 2007, 2010). The experiment found that the newly revised model of reputation repair was an excellent fit. Further, this research examined whether the model changed based upon presence of instructing information, presence of adjusting information, and crisis severity.

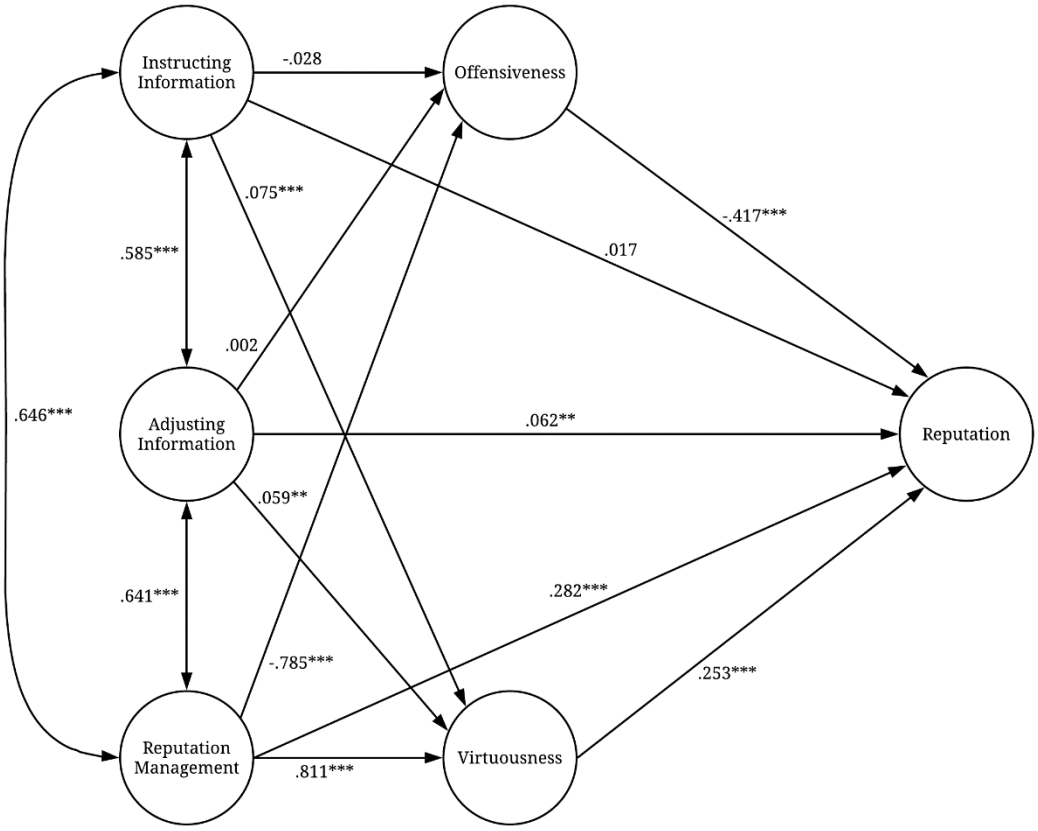
RQ5 and RQ6 asked whether the newly created scales could be used to create a revised model of reputation repair. Latent variable path analysis with mplus and a Satorra-Bentler correction confirmed the revised model of reputation repair was a good fit, *SRMR* = .048, *RMSEA* = .042, 90 CI [.040, .045], *CFI* = .964. Reputation management messages had the largest standardized effects on offensiveness (-.785) and virtuousness (.811) of any of the message strategies. Instructing information (.075) and adjusting information (.059) had statistically significant effects on virtuousness, but neither had a statistically significant effect on offensiveness. Adjusting information (.062), reputation management messages (.282), offensiveness

(-.417), and virtuousness (.253) all had statistically significant effects on reputation (see Figure 5.1 for full model). Message strategies correlated strongly. Instructing information correlated with adjusting information (.585) and reputation management messages (.646), while adjusting information correlated strongly with reputation management messages (.641). The model shows that reputation management messages (.814) has the largest structural effect on reputation (see Table 5.3). This dissertation hypothesized that instructing information (H5a), adjusting information (H5b), reputation management messages (H5c), offensiveness (H5d), and virtuousness (H5e) would each have a direct statistically significant effect on reputation. Therefore, H5b, H5c, H5d, and H5e were supported, while H5a was not. This dissertation also hypothesized that instructing information (H6a), adjusting information (H6b), and reputation management messages (H6c) would each decrease offensiveness. Therefore, H6a and H6b were not supported, but H6c was supported. Finally, this dissertation hypothesized that instructing information (H7a), adjusting information (H7b), and reputation management messages (H7c) would each increase perceived virtuousness. Therefore, H7a, H7b, and H7c were all supported.

Table 5.3 Structural Effects of Message Types on Reputation

Message	Direct Effect	Indirect (Offensiveness)	Indirect (Virtuousness)	Total Effect
Instructing Information	.017	-.028 * -.417 = .012	.075 * .253 = .019	.048
Adjusting Information	.062	.002 * -.417 = -.001	.059 * .253 = .015	.076
Reputation Management	.282	-.785 * -.417 = .327	.811 * .253 = .205	.814

Figure 5.1: Revised Model of Reputation Repair

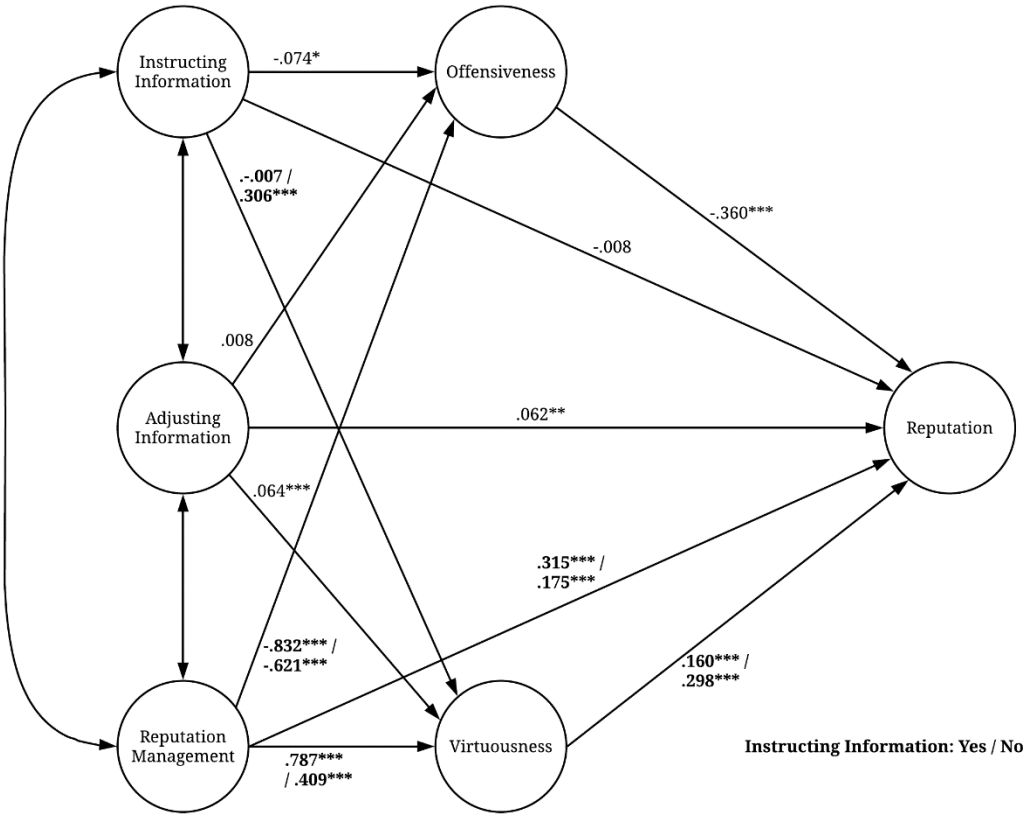


5.2.3 Instructing Information

RQ7a asked whether the revised model of reputation repair changed based upon the presence or absence of instructing information. In stage one, the model of the subgroup with cases where instructing information was present was a good fit, *SRMR* = .046, *RMSEA* = .045 95 CI [.042, .049], *CFI* = .964, as was the model of the subgroup with cases where instructing information was not present, *SRMR* = .061, *RMSEA* = .042 95 CI [.038, .045], *CFI* = .951. Further, in stage two, the models were tested together and found to be a good fit, *SRMR* = .058, *RMSEA* = .047 95 CI [.045, .049], *CFI* = .950. In stage three, several constraints were found to create a significant

difference and so they were released. The released constraints were offensiveness on reputation management messages, virtuousness on instructing information and reputation management messages, and reputation on reputation management messages and virtuousness. The final model was a good fit, *SRMR* = .059, *RMSEA* = .047 95 CI [.044, .049], *CFI* = .950 (see Figure 5.2). Therefore, RQ7a was answered that the model changed significantly in the effects of reputation management messages on offensiveness and instructing information and reputation management

Figure 5.2: Revised Model of Reputation Repair by Instructing Information



Note: Because it involves two groups that may have different standard deviations between factors, the measures in this figure are unstandardized.

messages on virtuousness. In particular, instructing information had significantly more effect on the model when it was not given than when it was given.

5.2.4 Adjusting Information

RQ7b asked whether the revised model of reputation repair changed based upon the presence or absence of adjusting information. In stage one, the model of the subgroup with cases where adjusting information was present was a good fit, *SRMR* = .043, *RMSEA* = .043 95 CI [.040, .047], *CFI* = .966, as was the model of the subgroup with cases where instructing information was not present, *SRMR* = .056, *RMSEA* = .047 95 CI [.043, .050], *CFI* = .954. Further, in stage two, the models were tested together and found to be a good fit, *SRMR* = .055, *RMSEA* = .046 95 CI [.044, .048], *CFI* = .957. In stage three, no constraints were found to create a significant difference. The final model was a good fit, *SRMR* = .056, *RMSEA* = .046 95 CI [.044, .048], *CFI* = .956. Therefore, RQ7b was answered that the model did not change with or without the presence of adjusting information.

5.2.5 Crisis Type

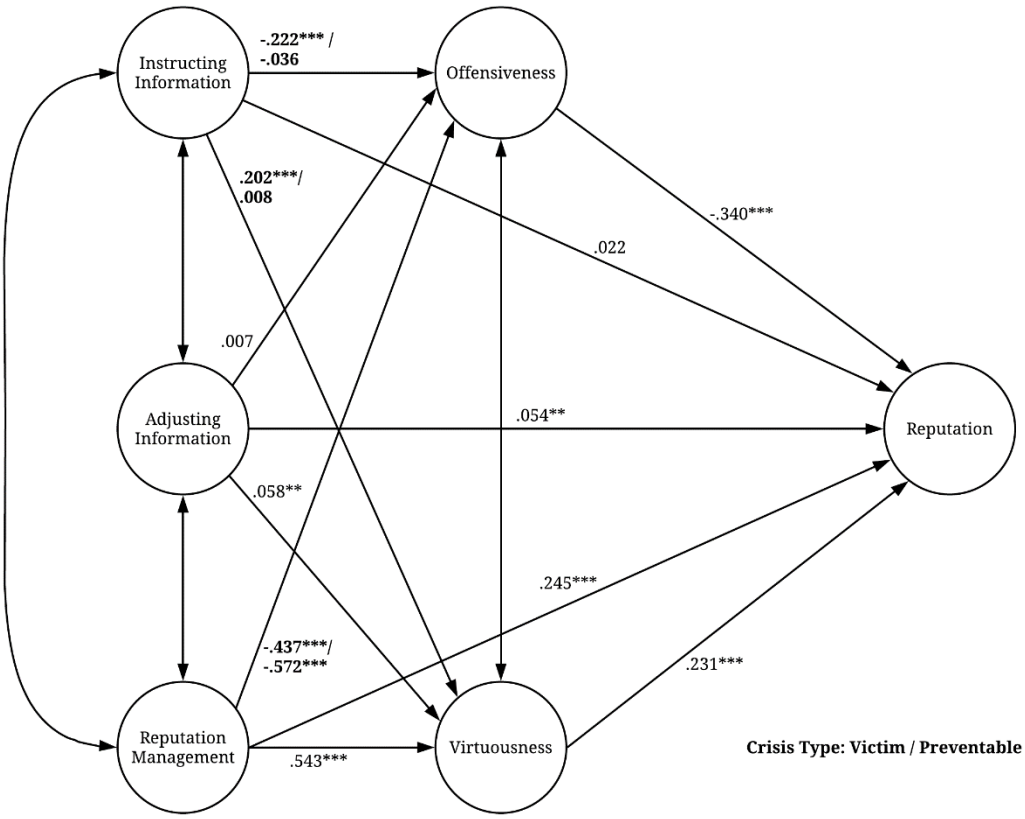
RQ8a asked whether the revised model of reputation repair changed based upon the crisis type. In stage one, the model of the subgroup with a victim crisis was a good fit, *SRMR* = .045, *RMSEA* = .045 95 CI [.042, .049], *CFI* = .960, as was the model of the subgroup with cases with a preventable crisis, *SRMR* = .067, *RMSEA* = .042 95 CI [.039, .046], *CFI* = .949. Further, in stage two, the models were tested together and initially found to have a borderline fit due to low CFI, *SRMR* = .080, *RMSEA* = .048 95 CI [.045, .050], *CFI* = .945. In reviewing indices, it was clear that the data wanted to correlate offensiveness and virtuousness. This makes theoretical

sense and so the change was made and model fit tested again. The result was a model with better fit, *SRMR* = .073, *RMSEA* = .046 95 CI [.044, .048], *CFI* = .949. In stage three, three constraints were found to make a significant difference and so each was removed. Offensiveness on instructing information and reputation management messages were released. In addition, virtuousness on instructing information was released. The final model was a fit comparable to stage two, *SRMR* = .074, *RMSEA* = .046 95 CI [.044, .048], *CFI* = .949 (see Figure 5.3). Therefore, RQ8a was answered that the model changed as a result of crisis type and the effects of instructing information and reputation management messages on offensiveness were changed. In addition, the effects of instructing information on virtuousness changed. In all of these changes, instructing information took on more prominence in a victim crisis than in a preventable crisis, while reputation management messages took on more prominence in a preventable crisis than in a victim crisis.

5.2.6 Severity

RQ8b asked whether the revised model of reputation repair changed based upon the severity of the crisis. In stage one, the model of the subgroup with cases with a high severity crisis was a good fit, *SRMR* = .046, *RMSEA* = .043 95 CI [.039, .046], *CFI* = .965, as was the model of the subgroup with cases with a low severity crisis, *SRMR* = .054, *RMSEA* = .046 95 CI [.043, .050], *CFI* = .958. Further, in stage two, the models were tested together and found to be a good fit, *SRMR* = .053, *RMSEA* = .045 95 CI [.043, .047], *CFI* = .959. In stage three, no constraints were found to create a significant difference. The final model was a good fit, *SRMR* = .054,

Figure 5.3: Revised Model of Reputation Repair by Crisis Type



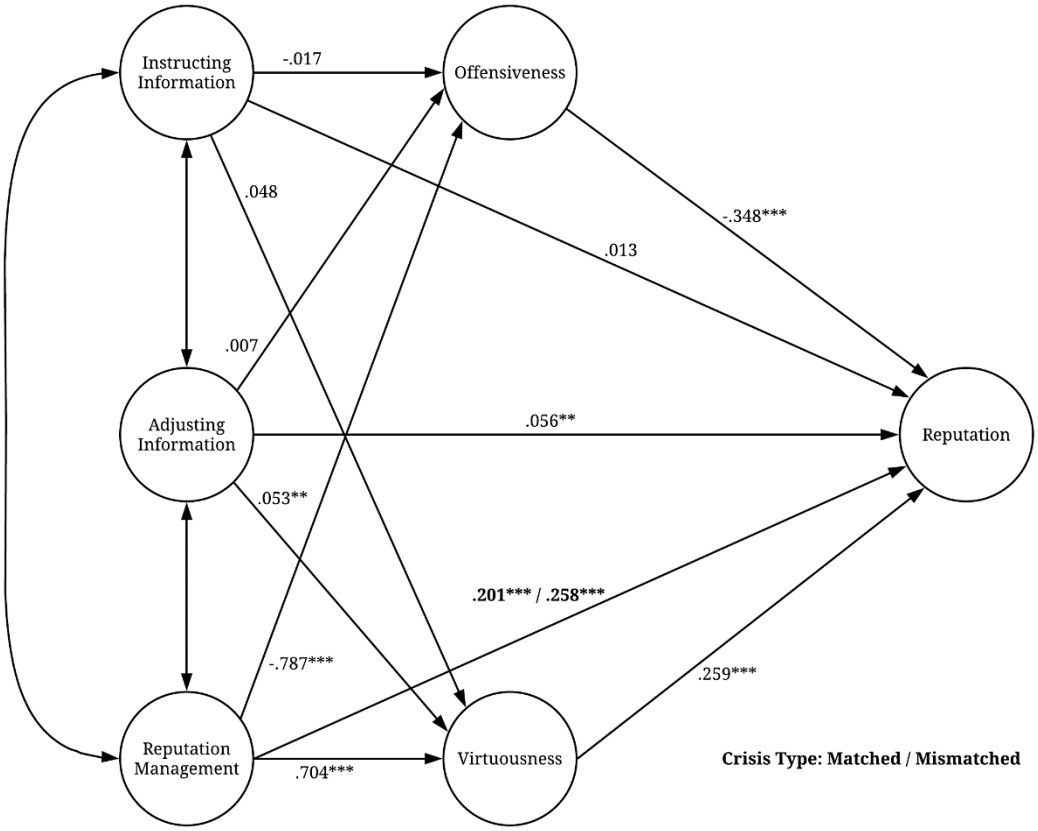
Note: Because it involves two groups that may have different standard deviations between factors, the measures in this figure are unstandardized.

RMSEA = .045 95 CI [.043, .047], *CFI* = .959. Therefore, RQ8b was answered that the model did not change depending on the severity of the crisis.

5.2.7 SCCT's Matched Responses Model

RQ8c asked whether the revised model of reputation repair changed based upon whether the crisis response strategy was matched or mismatched according to SCCT. In stage one, the model of the subgroup with cases with matched responses was a good fit, *SRMR* = .050, *RMSEA* = .048 95 CI [.045, .051], *CFI* = .955, as was

Figure 5.4: Revised Model of Reputation Repair by Matched vs. Mismatched Responses



Note: Because it involves two groups that may have different standard deviations between factors, the measures in this figure are unstandardized.

the model of the subgroup with cases with mismatched responses, *SRMR* = .050, *RMSEA* = .042 95 CI [.039, .046], *CFI* = .965. Further, in stage two, the models were tested together and found to be a good fit, *SRMR* = .053, *RMSEA* = .046 95 CI [.043, .048], *CFI* = .958. In stage three, the constraint of reputation on reputation management messages was found to create a significant difference so it was released. The final model was a good fit, *SRMR* = .056, *RMSEA* = .045 95 CI [.043, .048], *CFI* = .958 (see Figure 5.4). Therefore, RQ8c was answered that the model changed the

effect of messages on reputation depending upon whether crisis response strategies were matched or mismatched according to SCCT. Specifically, the size of the effect of reputation management messages on reputation increases slightly for a mismatched response than for a matched response.

5.3 Experiment Discussion

This experiment tested a revised model of reputation repair built upon scales developed in the pilot to measure instructing information, adjusting information, reputation management messages, crisis offensiveness and perceived virtuousness that help an organization's reputation. These newly created measures, and the final model, demonstrated large total effects from reputation threat and crisis response on post-crisis reputation, while the standard test of SCCT's matching construct resulted in a very small effect. In addition, this experiment and the multigroup analysis of it has significant implications for the base crisis responses. Each is discussed in turn.

5.3.1 Effect Size Disparity

The biggest finding of this experiment is the dramatic difference in effect size between the matching construct suggested by SCCT's effect on reputation ($\acute{\eta}^2 = .005$) and the structural effects of reputation management messages on reputation (.814) in the revised model of reputation repair. These effect sizes are not directly comparable, which is why no statistical test comparing them is provided; however, the lessons gained from these effect sizes are just as stark as the disparity between the numbers. This section explains the difference.

The test of the effects of SCCT's matching construct was found to be statistically significant ($p = .020$), but practically insignificant ($\acute{\eta}^2 = .005$). In practical

terms, this result means that using a matched response compared with a mismatched one predicted .005 of the variance in reputation scores. That is half of 1% of all the variance in reputation, which is why the effect could be said to be practically insignificant. This finding is not a huge surprise as Coombs (2016) has already conceded that these response strategies will never have a large effect. However, this finding is put into perspective by the effect size of the newly created reputation management messages in the exact same dataset.

Specifically, the standardized total structural effect of reputation management messages on reputation was .814, meaning that a one standard deviation change in reputation management messages improved reputation by .814 of a standard deviation. In unstandardized terms, the total effect was .676. This suggests that a one unit increase on the reputation management message scale (which was out of 80) would be predicted to increase the reputation scale (which was out of 50) by .676. This is a huge change and suggests that the reputation management messages scale could easily be used as a dependent variable by future researchers in ANOVA or regression studies attempting to test different attributes of messages to see what makes them most effective. But why is the disparity so stark?

The logical conclusion of these findings is that the response strategy is not very important compared with other attributes of a crisis response message. While crisis response messages can significantly impact post-crisis reputation, the dominant feature of those messages is not the crisis response strategy. The crisis type does make a difference in how response messages impact reputation, but nothing in this research suggests the matching construct has a large effect. Future researchers can use

the measures created in this dissertation to find what aspects of crisis response messages impact reputation most strongly, and then help practitioners optimize their responses accordingly. To find potential aspects of messages that have an effect, researchers would be wise to look to the measures themselves and literature in both rhetoric and persuasion. Based upon these measures, perceptions that the organization acted responsibility and was sincere seem to drive much of the effect. Therefore, researchers should consider what enhances perceived sincerity and responsibility in particular, though other aspects of messages may influence results as well.

5.3.2 Base Crisis Responses

This experiment found that instructing information has a much larger influence on reputation in crises where it is not used properly or in victim type crisis situations than when it is used correctly or in preventable crisis situations. The first finding suggests that providing good instructing information is an expectation of stakeholders and that failing to do so can pose a reputation threat in and of itself. That finding fits with public examples of failure to use instructing information such as the Flint water contamination crisis (CNN Library, 2017). Thus, organizations should generally see instructing information as an obligation to be performed whenever possible.

The second finding suggests an organization can improve its reputation by issuing instructing information when it is not responsible for a crisis. The difference between victim and preventable crisis situations is new to crisis communication literature. In crisis situations where an organization truly is a victim, the opportunity to impact both offensiveness and virtuousness is present. However, this reputation

benefit goes away in a preventable crisis. In such cases, issuing instructing information is a tool to prevent further reputational harm. Of course, giving instructing information where possible is, first and foremost, an ethical responsibility. Indeed, it is likely that the reputation benefits found here come because an organization is seen as following its ethical responsibilities. Still, the benefit of issuing such information increasing in a victim crisis is an interesting finding that will hopefully motivate more organizations to give instructing information.

Further, the results of the experiment suggest that the base crisis responses affect reputation through perceptions of virtuousness. The initial revised model of reputation repair shows statistically significant effects of instructing information and adjusting information on virtuousness, but not on offensiveness, suggesting that base crisis responses have an indirect effect on reputation through perceived virtuousness. Further, the multi-group analysis made clear that this effect grows when the base crisis responses are not given, meaning that the reputation cost of not giving base crisis responses comes through reduced perception of virtuousness. In other words, this research created measures that will help explain how base crisis responses impact reputation. It also confirmed the message structure proposed within SCCT of separating base crisis responses from reputation management messages was a good idea (Coombs, 2015; Kim & Sung, 2014; Park, 2017).

Chapter 6: Final Thoughts

This dissertation clarifies the SCCT literature by explaining and naming the two key constructs of SCCT. Armed with this clarity, this dissertation identifies three key anomalies in the reputation repair paradigm and addresses how they can be resolved. To do so, this dissertation created new measures that reputation repair researchers can use moving forward. This chapter provides final thoughts on the findings and their implications. Further, this chapter discusses what scholars and public relations practitioners can gain from this dissertation.

6.1 SCCT Clarified

This dissertation begins with a review of the history of SCCT. This history describes SCCT in three phases named origins, emergence, and moving forward. Each is critical to understanding SCCT.

Origins clarifies the assumptions of SCCT and explains other competing assumptions that had been discarded by the paradigm. This dissertation seeks to bring back one of those assumptions, namely that offensiveness is a required attribute of a crisis situation. Emergence explains how SCCT grew into the dominant theory of the reputation repair paradigm. It also clearly explains the two key constructs of the theory. Because past research did not name and distinguish these constructs, this dissertation named the model of reputation repair and distinguished it from the matching construct. Finally, with the clarity gained by distinguishing the key constructs, moving forward reviewed the existing anomalies in the reputation repair paradigm and proposed revisions that would address these anomalies.

6.2 Anomalies and Paradigm Adjustment

This dissertation set out to address three specific anomalies in the reputation repair paradigm. The anomalies were that the model of reputation repair is not actually tested in many crisis communication studies, studies were not consistently confirming SCCT's matching construct (Ma & Zhan, 2016), and that the effect sizes for crisis response strategies were very small (Coombs, 2016; Ma & Zhan, 2016). Each of these anomalies has been addressed in the dissertation.

Following the suggestion of O'Keefe (2003) that scholars carefully consider attributes of messages and the recent research that has suggested inclusion of the base crisis response strategies (e.g., Kim & Sung, 2014; Park, 2017), this research created measures of each of the three crisis response message types outlined by Coombs (2015) and then used them to test the model of reputation repair outlined by Coombs (2007, 2010). The model was found it to be a good fit; however, in developing these measures, the researcher found two other factors that would help design a better model: offensiveness and virtuousness.

After reviewing literature that suggested involvement might impact crisis outcomes (Claeys & Cauberghe, 2014), this research returned to a key difference in the early literature between SCCT (Coombs & Holladay, 2002) and image repair theory (Benoit, 1997) regarding the factors that constitute a crisis. SCCT had focused exclusively on attributed responsibility, while image repair theory had noted that offensiveness was also a requirement for a reputation threat to be present. Using both linear methods and fsQCA, this research demonstrated that understanding the offensiveness of a crisis matters in understanding the reputation threat posed by a

crisis. Therefore, this dissertation created new measures of offensiveness and virtuousness. It then proposed a revised model of reputation repair that incorporated all of these measures. This revised model was tested and found to be a good fit. Indeed, crisis response messages were found to have a very large (.814) structural effect on reputation, though the matching construct of SCCT was found to have a very small effect (η^2 = .005).

Therefore, this dissertation addresses the second anomaly by confirming that the matching construct is not a good lens to view effective crisis communication. Fortunately, the dissertation finds new measures that result in large effects, thus addressing the third anomaly of small effect sizes and enabling future scholars to consider how other factors may moderate crisis results.

In other words, this dissertation's key finding is that post-crisis messages can have a large effect on organizational reputation. At first glance, this finding might appear to be inconsistent with the meta-analysis of SCCT (Ma & Zhan, 2016) and response from the theory's founder (Coombs, 2016) that both suggest crisis response strategies have a small impact on reputation. That initial impression is incorrect. This dissertation reaffirms the findings of the meta-analysis that suggests the *matching construct* of SCCT has very small effects. Yet, this dissertation also demonstrates that reputation management messages significantly impact organizational reputation in the aftermath of a crisis, and it builds scales that researchers can use to discover which attributes of a response create this effect.

Therefore, this dissertation suggests that the reputation repair paradigm should adjust by using the new revised model of reputation repair in place of the old model.

This model incorporates the base crisis responses and crisis offensiveness. Further, research should use the measures designed in this study rather than returning to the old matching construct of SCCT (Coombs, 2007, 2015). Since the matching construct explains little of post-crisis reputation, while the newly created measures explain a large percentage of post-crisis reputation, using the newly created measures will make it easier to discover additional ways to improve crisis response strategies. The field of persuasion research has created numerous suggestions for crisis scholars to apply to post-crisis messaging. These measures, especially the reputation management messages measure, should make conducting such research feasible and interesting for researchers and useful for practitioners.

Further, while the matching construct of SCCT does not seem to have a large effect on post-crisis reputation, it is possible that a revised scheme of prescribed responses will have a larger effect and therefore be useful to crisis communicators. Future researchers should consider developing new methods of prescribed responses after examining other attributes of persuasion that may have a large influence. Understanding how existing persuasion theories operate in a crisis context will benefit the development of a new prescription scheme.

Chapter 2 of this dissertation argues that we are at the beginning of a third phase of research into SCCT and reputation repair that is called moving forward. The remainder of this chapter discusses how reputation repair scholars and public relations practitioners can benefit from this dissertation as they move forward with their work.

6.3 Scholars

This dissertation can benefit public relations scholars in three key ways. First, it created a series of valid, reliable measures to use in future studies of crisis situations and the public relations response to them. Second, these measures illuminate answers to key questions that public relations scholars have considered for some time. Third, these measures have become a tool for considering new meaningful questions in the future. Each is discussed in turn.

First and foremost, this dissertation created a series of valid, reliable measures that scholars can use in their crisis research and explained how they relate with one another. Building upon concepts in crisis communication (e.g., Coombs, 2015, Kim & Sung, 2014; Park, 2017) and moral psychology (e.g., Haidt & Joseph, 2004; Graham et al., 2009, 2011), this research created five new scales that assess the factors of reputation threat, offensiveness and virtuousness, and crisis response message types, instructing information, adjusting information, and reputation management messages. Measures typically work best when they are created explicitly to examine specific situations (Coombs, 2016) and so these measures become a valuable new tool for scholars studying crisis public relations. To prove this point, one need only to look at the large effect sizes, which indicate the measures are explaining a very large amount of change in reputation resulting from crisis situations. Each of these scales individually, some grouping of them, or all of them together, can be used as dependent variables in future studies considering some aspect of how crisis communication impacts reputation. The scales are tailor-made for scholars to do so.

Second, in building these measures and defining how they impact one another, this dissertation has contributed knowledge related to meaningful questions asked and debated by public relations scholars. Particularly, this dissertation has demonstrated that post-crisis response messages can have a large effect on reputation as opposed to just the small effects that had previously been found (Coombs, 2016; Ma & Zhan, 2016), demonstrated the mechanism through which the base crisis responses effect reputation above and beyond reputation management messages, and even shown that the impact of base crisis responses increases in a victim-type crisis or when they are not given (Kim & Sung, 2015; Park, 2017). Further, this dissertation has shown that the model of crisis communication changes slightly depending upon the type of crisis (Coombs, 2004), and that the model of reputation repair put forward by Coombs (2007, 2010) works. However, it has created a new revised model of reputation repair with stronger effects that can explain more of the reputation change posed by post-crisis organizational communication.

Third, these newly created measures have become a tool to consider more questions scholars have posed regarding crisis communication. For example, using these valid, reliable measurements, scholars can and should consider why some organizations get a buffering effect that prevents reputational harm following crisis situations (Richards et al., 2017), the ways an organization can engage in virtuousness to protect its reputation (Coombs & Holladay, 2006; Kim & Sung, 2014; Park, 2017), and what aspects of crisis responses and reputation threats moderate the relationship between these measures and post-crisis reputation.

6.4 Public Relations Practitioners

The first benefit of this research to public relations practitioners is in the scholarship it will hopefully empower. However, this dissertation provides two other benefits to public relations practitioners. First, these newly created measures can be useful to public relations practitioners. Second, this research has answered questions regarding crisis response strategies that can be helpful to public relations practitioners.

First, there are two different ways that public relations practitioners can use these measures to improve their practice. In an ideal world, public relations practitioners could use these measures to pre-test crisis response messages and ensure responses will be well received. However, many (if not most) crisis situations develop very quickly and do not allow public relations practitioners the time to pre-test responses. Further, many departments lack budget or resources to conduct pre-tests of messages. Fortunately, these scale items are also available for practitioners to review. While they may not have time or budget to formally test the responses, they will have time to think through how targeted publics might answer each of the questions in these measures based upon responses the practitioner plans to give. Such review, if done well, will help practitioners to concentrate their crisis responses to improve the reputation of the organizations they serve.

Second, this research found that virtuousness from an organization mitigate the reputation threat posed by crisis situations. Further, it found that base crisis responses are particularly valuable in victim-type crisis situations to improve reputation. This research therefore reinforces the suggestion of Coombs (2015) that

public relations practitioners should use the base crisis responses even when no attributed responsibility is present. In addition to the ethical responsibility to provide instructing information, this dissertation provides a second reason for public relations practitioners to provide good instructing information. Indeed, based upon this research we may say that the base crisis responses should be used *especially* when no responsibility or reputation threat is present. The opportunity to improve a reputation is available through such behaviors. While future research empowered by this dissertation will hopefully shed more light on best practices of how to give crisis response messages, this research is still of value in providing extra motivation to ethically provide instructing information, and providing tools that will be useful to crisis communicators.

6.5 Limitations

All research has limitations, and this project is no different. This dissertation is an experiment and participants were aware they were being observed, which may have changed their behavior. It was performed at a single moment in time, right after people were exposed to a crisis, so it does not account for longitudinal effects that may occur. In addition, the dissertation used mTurk samples, which are better than most convenience samples but less representative of the population than a random sample (Berensky et al., 2012; Paolacci & Chandler, 2014). The dissertation is further limited because it is a fairly general sample rather than a sample of a specific public (e.g., college students) that have similar characteristics. This limits the ability of the researcher to design stimuli that will be very close to participants' interests. Specifically, the researcher was unable to specify a location for the building on fire to

be near to participants or a real-world company with which all of the participants have a pre-existing relationship. As a result, the involvement of participants in the crisis situation is unknown. The experiment from this dissertation is also a study of one crisis situation in the United States. Therefore, the results may not generalize to other crisis types, other organization types, or outside the United States.

6.6 Conclusion

Contrary to prior research (Coombs, 2016; Ma & Zhan, 2016), this dissertation found that organizational crisis response messages can have a very large effect on post crisis reputation. To find this information, this dissertation tested SCCT's attribution-only approach to crisis against the image repair approach that includes offensiveness and found incorporating offensiveness increases understanding. The inclusion of offensiveness in crisis models improves understanding of the reputation threat posed by crisis, culminating in the new revised model of reputation repair that incorporates three different types of crisis response messages and two different measures of reputation threat. Understanding these additional dimensions helps researchers understand questions around the base crisis responses and how they impact reputations. Finally, this dissertation built a series of measures that will empower future researchers to study crisis response messages and the reputation threat posed by crisis. Hopefully, these measures will focus researchers on the attributes of successful crisis communication and how to prevent reputation threatening crises from occurring in the first place.

Appendices

Appendix A: Pilot 1

In this research, I am seeking to understand what causes crisis situations for organizations. A crisis is a sudden, unexpected event that harms the operations, finances, or reputation of an organization.

A crisis may come because an organization is perceived to harm someone, act unfairly, betray others, disrespect authority, or do something disgusting. I want your feedback about how an organization can cause a crisis. Please feel free to share any ideas you have in the blanks below.

What types of harm can an organization cause to others?

_____

_____

_____

_____

_____

How can an organization act unfairly toward others?

_____

_____

_____

_____

_____

How can an organization betray others?

_____

_____

_____

_____

_____

How can an organization show disrespect for authority?

_____

_____

_____

_____

_____

What are disgusting things an organization might do?

_____

_____

_____

_____

_____

What other things can an organization do to cause a crisis?

_____

_____

_____

_____

_____

Now I'm seeking to measure how an organization can respond to a crisis situation. In these three blanks, you can help me understand how an organization can respond and the sort of objectives it should have.

If your organization experienced a crisis, what strategic objectives might you use to ensure you protected your stakeholders?

_____

_____

_____

_____

_____

If your organization experienced a crisis, what strategic objectives might you use to ensure stakeholders knew everything was ok?

_____

_____

_____

_____

_____

If your organization experienced a crisis, what strategic objectives might you use to repair your organization's reputation?

_____

_____

_____

_____

_____

Finally, tell me just a little bit about you. Which of the following have you done in public relations?

- Professional Work
- Graduate Coursework in PR
- Undergraduate Degree in PR
- None of the Above

How many years have you worked in public relations?

_____

What is the highest title you have held in public relations?

_____

What is your age?

What is your sex?

- Male
- Female
- Other

Appendix B: Pilot 2

Participants were assigned to either Pilot A or Pilot B and then followed completely different paths depending upon the assignment.

Pilot A (Reputation Threat)

All participants read the following:
Thank you for taking this quick survey! Please read the questions carefully and answer honestly. This survey includes a few questions designed to make sure you are reading. **If you miss one of these questions, your HIT will be rejected.**

Megalane and Infralane are two different companies that are based in the United States. Please read a quick story about an event that involves one of them.

Participants were assigned to read one of the following:

Care:

Megalane **did not** recall a harmful product because issuing the recall would have required giving refunds to customers that would have cost the company $500,000.

Megalane billboards had a typo that insulted disabled people. Megalane **declined** to fix the billboards because it would have cost $500,000.

Infralane **did not** recall a harmful product because issuing the recall would have required giving refunds to customers that would have cost the company $500,000.

Infralane billboards had a typo that insulted disabled people. Infralane **declined** to fix the billboards because it would have cost $500,000.

Fairness:

Megalane billed a client for more work than the company actually performed. Megalane **did not** return the money because it would have cost $500,000.

Megalane bribed its landlord to make renovations in its building before its neighbors. The early renovations helped Megalane avoid costs of $500,000.

Infralane billed a client for more work than the company actually performed. Infralane **did not** return the money because it would have cost $500,000.

Infralane bribed its landlord to make renovations in its building before its neighbors. The early renovations helped Infralane avoid costs of $500,000.

Loyalty:

Megalane's CEO retweeted a foreign dictator's criticism of the United States. Megalane **did not** fire the CEO because it would have cost $500,000.

American company Megalane purchased its parts from foreign suppliers because purchasing the same parts from American suppliers would have cost Megalane an additional $500,000.

Infralane's CEO retweeted a foreign dictator's criticism of the United States. Infralane **did not** fire the CEO because it would have cost $500,000.

American company Infralane purchased its parts from foreign suppliers because purchasing the same parts from American companies would have cost Infralane an additional $500,000.

Authority:

Megalane provided false information to federal regulators who oversaw its business. The false information allowed Megalane to avoid costs of $500,000.

Megalane refused to follow a state law that was recently implemented. Following the state law would have cost Megalane $500,000.

Infralane provided false information to federal regulators who oversaw its business. The false information allowed Infralane to avoid costs of $500,000.

Infralane refused to follow a state law that was recently implemented. Following the state law would have cost Infralane $500,000.

Sanctity:

Megalane employees had consensual group sex in a private company office on the weekend. Megalane **did not** fire them because replacing them would have cost $500,000.

Megalane's CEO ate food off a dead body in his office. Megalane **did not** fire the CEO because replacing the CEO would have cost $500,000.

Infralane employees had consensual group sex in a private company office on the weekend. Infralane **did not** fire them because replacing them would have cost $500,000.

Infralane's CEO ate food off a dead body in his office. Infralane **did not** fire the CEO because replacing the CEO would have cost $500,000.

Control:

Megalane operated its business normally on Monday. Megalane experienced no sudden changes and treated its employees as it normally does.

Infralane operated its business normally on Monday. Infralane experienced no sudden changes and treated its employees as it normally does.

All participants answered the following questions.

NOTE: The order of presentation of all questions, and all statements within each question, were randomized.

Attention Check: Which company was the subject of the story you just read?

- Megalane
- Infralane
- Neither

Attribution Griffin, Babin, & Darden, 1992: How much do you agree with the following statements? (0 = strongly disagree, 10 = strongly agree)

- Megalane was responsible for the event.
- Circumstances not in Megalane's control were responsible for the event.
- Megalane was to blame for the event.
- Circumstances not in Megalane's control were to blame for the event.

Moral Foundations 1 (Graham et al., 2009 – measures moral violations): Indicate how much you agree with the following statements regarding the event. (0 = strongly disagree, 10 = strongly agree)

- Megalane caused someone to suffer emotionally.
- Megalane made someone angry.
- Megalane made someone anxious.
- Megalane hurt someone's health.
- Megalane hut someone financially.
- Megalane protected people.*
- Megalane was cruel.
- Megalane cared for someone weak or vulnerable.*
- Megalane made others less safe.
- Select strongly agree to prove you are reading.
- Megalane ignored red flags.
- Megalane was careless.
- Megalane made others safer.*
- Because of Megalane, some people were treated differently than others.
- Megalane acted unfairly.
- Because of Megalane, someone was denied his or her rights.

- Megalane discriminated against someone.
- Megalane took advantage of someone.
- Megalane was dishonest.
- Megalane cheated someone.
- Megalane was honest.*
- Megalane treated everyone equally.*
- Megalane acted fairly.*

Moral Foundations 2: Indicate how much you agree with the following statements regarding the event. (0 = strongly disagree, 10 = strongly agree)

- Megalane showed love for its country.*
- Megalane did something to betray its people.
- Megalane showed a lack of loyalty.
- Megalane was loyal.*
- Megalane did not follow its own rules.
- Megalane mistreated its people.
- Megalane took care of its people.*
- Select strongly disagree to prove you are reading.
- Megalane was a team player.*
- Megalane violated trust.
- Megalane was trustworthy.*
- Megalane showed a lack of respect for authority.
- Megalane conformed to the traditions of society.*
- Megalane's actions caused chaos or disorder.
- Megalane disobeyed leaders.
- Megalane broke the rules.
- Megalane acted unethically.
- Megalane broke the law.
- If everyone behaved like Megalane, the world would be chaotic.
- Megalane respected authority.*
- Megalane followed the law.*
- Megalane acted in a way that God would approve of.*
- Megalane violated standards of purity and decency.
- Megalane acted in a pure and decent way.*
- Megalane did something disgusting.
- Megalane did something unnatural.
- Megalane did something natural.*
- Megalane did something acceptable.*
- Megalane acted in a way that disappoints God.
- Even if they hurt nobody, Megalane's action would still be wrong.

Moral Foundations repeated 1 (without attribution): Indicate how much you agree with the following statements regarding the event. (0 = strongly disagree, 10 = strongly agree)

- Someone suffered emotionally.
- Someone was angry.
- Someone was anxious.
- Someone's health was hurt.
- Someone was hurt financially.
- Someone protected people.*
- Someone was cruel.
- Someone cared for someone weak or vulnerable.*
- The event made someone less safe.
- Select strongly agree to prove you are reading.
- Someone ignored red flags.
- Someone was careless.
- Someone made others safer.*
- Because of the event, some people were treated differently than others.
- Someone acted unfairly.
- In the event, someone was denied his or her rights.
- Someone was discriminated against.
- Someone was taken advantage of.
- Someone was dishonest.
- Someone cheated someone else.
- Someone was honest.*
- Someone treated everyone equally.*
- Someone acted fairly.*

Moral Foundations repeated part 2 (without attribution): Indicate how much you agree with the following statements regarding the event. (0 = strongly disagree, 10 = strongly agree)

- Someone showed love for its country.*
- Someone did something to betray its people.
- Someone showed a lack of loyalty.
- Someone was loyal.*
- Someone did not follow its own rules.
- Someone mistreated its people.
- Someone took care of its people.*
- Someone was a team player.*
- Someone violated trust.
- Someone was trustworthy.*
- Someone showed a lack of respect for authority.
- Someone conformed to the traditions of society.*
- Someone's actions caused chaos or disorder.
- Someone disobeyed leaders.
- Someone broke the rules.
- Someone acted unethically.
- Someone broke the law.

- If everyone behaved like the event, the world would be chaotic.
- Someone respected authority.*
- Someone followed the law.*
- Someone acted in a way that God would approve of.*
- Someone violated standards of purity and decency.
- Someone acted in a pure and decent way.*
- Someone did something disgusting.
- Someone did something unnatural.
- Someone did something natural.*
- Someone did something acceptable.*
- Someone acted in a way that disappoints God.
- Even they hurt nobody, actions in the event would still be wrong.

Severity (Zhou, Ki, & Brown, 2017): Indicate how much you agree with the following statements regarding the event. (0 = strongly disagree, 10 = strongly agree)

- I care about the event.
- Further news about the event is of my interest.
- I hope to know more about the event.
- I think the event interests me.
- The event increased my sense of stress.
- I feel quite anxious about the event.
- Select strongly agree to prove you are reading.
- My apprehension grew as I knew more about the event.
- I'm worried about the event.
- I feel influenced by this event.
- I find this event relevant to me.
- The event is meaningful to me.

Reputation (Coombs & Holladay reputation measure): How much do you agree with the following statements? (0 = strongly disagree, 10 = strongly agree)

- Megalane is basically honest.
- Megalane is concerned with the well-being of its publics.
- I do *not* trust Megalane to tell the truth about the incident.*
- I would prefer to have *nothing* to do with Megalane.*
- Under most circumstances, I would *not* be likely to believe what Megalane says.*
- Choose strongly disagree to prove you are reading.
- Megalane is basically *dishonest*.*
- I do *not* trust Megalane to tell the truth about the incident.*
- Under most circumstances, I would be likely to believe what Megalane says.
- I would attend one of Megalane's events.
- Megalane is *not* concerned with the well-being of the public.*

Adapted Reputation: <u>As a result of this event</u>, how likely are you to do the following? (0 = less likely, 10 = more likely)

- Think positively about Megalane.
- Trust Megalane.
- Associate with Megalane.
- Attend one of Megalane's events.
- Believe what Megalane says.
- Trust Megalane with the well-being of someone I care about.

Demographics

What is your age in years?

What is your race?

- Asian / Pacific Islander
- Black or African American
- Caucasian or White
- Hispanic / Latino
- Native American
- Other
- Prefer not to answer

What is your gender?

- Man
- Woman
- Other (specify)
- Prefer not to answer

How do you identify politically? (0 = conservative, 10 = liberal)
0 - 10

Thank you for taking time to participate in this survey! We want to let you know that the stories you have just read are not real. Megalane and Infralane are not real companies. The real purpose of the study was to examine how different characteristics of crisis response affect attitudes toward organizations. We did not mean to harm you in any way by telling you this story, but it was the only way to accomplish the purpose of this research. We are grateful for your participation.

We kindly ask you not to talk to others about this study for the next few months so the story will be persuasive to future readers. Should you have any questions, please feel free to contact the lead researcher Tyler Page at tpage@umd.edu.

Please click next and you receive your code.

Pilot B

All Participants read the following:

Thank you for taking this quick survey! Please read the questions carefully and answer honestly. This survey includes a few questions designed to make sure you are reading. **If you miss one of these questions, your HIT will be rejected.**

Participants were randomly assigned to read one of the following two vignettes (Crisis Introduced – Degree of Offensiveness Manipulated)

The following article appeared on January 20.

At Least 3 Dead, $10 million in Damage from Megalane Fire

By EDITORIAL STAFF

A three-alarm fire that started in Megalane's corporate office Thursday has killed at least 3 people and caused more than $10 million in property damage, fire officials said.

Hundreds of people, some crawling on their hands and knees to avoid the smoke, fled through the darkened corridors of the 10-story office building, in the 1800 block of Clark Street. Three did not make it out, and several more are hospitalized.

The following article appeared on January 20.

Minimal Damage from Megalane Fire

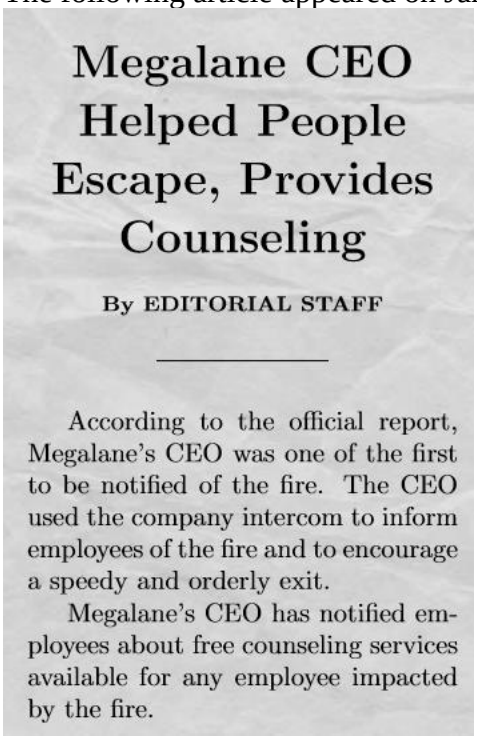
By EDITORIAL STAFF

A three-alarm fire that started in Megalane's corporate office Thursday resulted in no casualties and only minimal property damage, fire officials said.

Hundreds of people, some crawling on their hands and knees to avoid the smoke, fled through the darkened corridors of the 10-story office building, in the 1800 block of Clark Street. All escaped without harm.

Pilot B Participants were randomly assigned to read one of the following four vignettes (Instructing Information & Adjusting Information Manipulated)

The following article appeared on January 21.



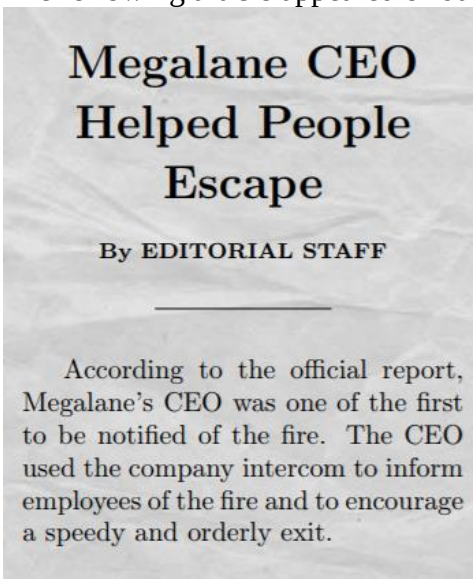
Megalane CEO Helped People Escape, Provides Counseling

By EDITORIAL STAFF

According to the official report, Megalane's CEO was one of the first to be notified of the fire. The CEO used the company intercom to inform employees of the fire and to encourage a speedy and orderly exit.

Megalane's CEO has notified employees about free counseling services available for any employee impacted by the fire.

The following article appeared on January 21.

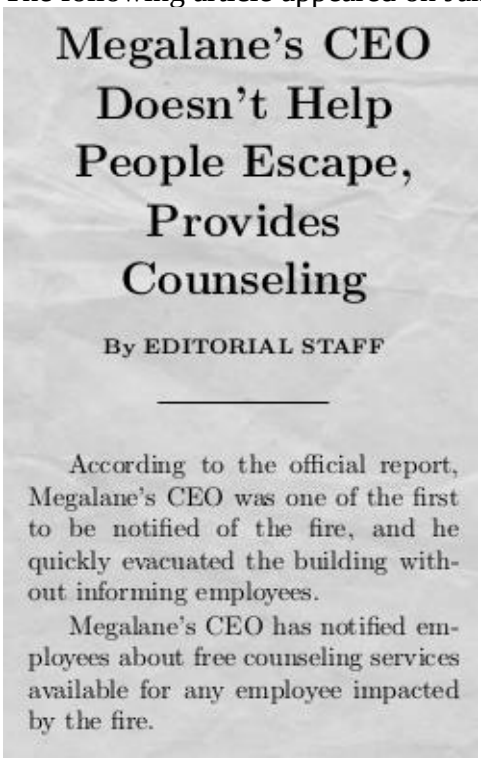


Megalane CEO Helped People Escape

By EDITORIAL STAFF

According to the official report, Megalane's CEO was one of the first to be notified of the fire. The CEO used the company intercom to inform employees of the fire and to encourage a speedy and orderly exit.

The following article appeared on January 21.



Megalane's CEO Doesn't Help People Escape, Provides Counseling

By EDITORIAL STAFF

According to the official report, Megalane's CEO was one of the first to be notified of the fire, and he quickly evacuated the building without informing employees.

Megalane's CEO has notified employees about free counseling services available for any employee impacted by the fire.

The following article appeared on January 21.

Megalane's CEO Doesn't Help People Escape

By EDITORIAL STAFF

According to the official report, Megalane's CEO was one of the first to be notified of the fire, and he quickly evacuated the building without informing employees.

Pilot B Participants were randomly assigned to read one of the five following vignettes (Crisis Response Manipulated)

The following article appeared on January 22.

Megalane CEO Denies Responsibility for Fire

By EDITORIAL STAFF

Megalane's CEO denied responsibility for last week's fire in a statement issued Monday.

"There is nothing we could have done to prevent this fire," the CEO said in a statement. "We are working hard to resume our normal operations."

The following article appeared on January 22.

Megalane CEO Apologizes for Starting Deadly Fire

By EDITORIAL STAFF

Megalane's CEO apologized for starting last week's fire in a statement issued Monday.

"This fire was completely our fault," the CEO said in a statement. "We are deeply sorry to the victims of our terrible mistake."

The following article appeared on January 22.

Megalane CEO Provides Justification

By EDITORIAL STAFF

Megalane's CEO justified the company's behavior related to the start of last week's deadly fire in a statement issued Monday.

"The circumstances that caused this fire could have happened to anyone," the CEO said in a statement. "We are excited to move forward and rebuild."

The following article appeared on January 22.

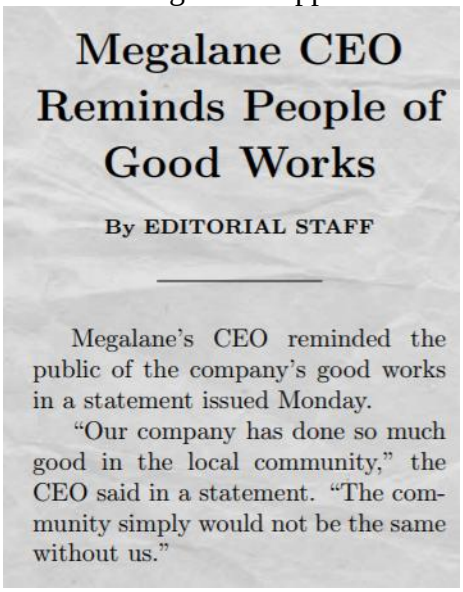
Megalane CEO Says Company is Victim

By EDITORIAL STAFF

Megalane's CEO explained the company is a victim of last week's deadly fire in a statement issued Monday.

"We are the greatest victims of this fire," the CEO said in a statement. "Our company has been displaced and we will have to work hard to move forward and rebuild."

The following article appeared on January 22.



Megalane CEO Reminds People of Good Works

By EDITORIAL STAFF

Megalane's CEO reminded the public of the company's good works in a statement issued Monday.

"Our company has done so much good in the local community," the CEO said in a statement. "The community simply would not be the same without us."

Pilot B Participants were randomly assigned to read one of the following two vignettes (Actual Story Manipulated)

The following article appeared on January 23.

Investigators: Lightning Caused Fire, Not Megalane CEO

By EDITORIAL STAFF

Rumors that the Megalane CEO started the fire in its own building to collect insurance money are false, according to arson investigators examining the scene.

"We have convincing evidence that a lightning strike started the fire," Fire Chief Alex Park said in a statement.

The following article appeared on January 23.

Investigators: Megalane CEO Caused Fire, Not Lightning

By EDITORIAL STAFF

Rumors that the Megalane CEO started the fire in its own building to collect insurance money are true, according to arson investigators examining the scene.

"We have convincing evidence that the CEO started the fire," Fire Chief Alex Park said in a statement.

All participants answered the following questions.

NOTE: The order of presentation of all questions, and all statements within each question, were randomized.

Attribution Griffin, Babin, & Darden, 1992: How much do you agree with the following statements? (0 = strongly disagree, 10 = strongly agree)

- Megalane was responsible for the event.
- Circumstances not in Megalane's control were responsible for the event.
- Megalane was to blame for the event.
- Circumstances not in Megalane's control were to blame for the event.

Severity (Zhou, Ki, & Brown, 2017): Indicate how much you agree with the following statements regarding the event. (0 = strongly disagree, 10 = strongly agree)

- I cared about the event.
- Further news about the event was of my interest.
- I hoped to know more about the event.
- I think the event interested me.
- The event increased my sense of stress.
- I felt quite anxious about the event.
- Select strongly agree to prove you are reading.
- My apprehension grew as I learned more about the event.
- I worried about the event.
- I felt influenced by this event.
- I found this event relevant to me.
- The event was meaningful to me.

Instructing Information: How much do you agree with the following statements about Megalane? (0 = strongly disagree, 10 = strongly agree)

- Megalane informed people who could be hurt.
- Megalane helped people know to get to safety.
- Megalane told people how to protect themselves.
- Megalane limited the damage to people and property with its message.
- Megalane gave information to protect people who could be harmed.
- Select strongly disagree to prove you are reading.
- Megalane maintained open lines of communication for safety information.
- Megalane provided all information that it could to protect people.
- Megalane volunteered safety information.
- Megalane hid safety information during the event.*

Adjusting Information: How much do you agree with the following statements about Megalane? (0 = strongly disagree, 10 = strongly agree)

- Megalane helped people know it is back in control after the fire.

- Megalane gave information to ease suffering after the event.
- Megalane expressed sympathy for people harmed in the event.
- Megalane provided emotional support for people involved.
- Megalane showed concern for people involved.
- Megalane helped people move forward after the event.
- Select strongly agree to prove you are reading.
- Megalane demonstrated its commitment to helping people involved.
- Megalane hid information after the event.*
- Megalane refused to help people emotionally.*
- Megalane responded to people's needs after the event.
- Megalane explained how it would help fix things.
- Megalane avoided talking about helping people after the event.*

Reputation Management: How much do you agree with the following statements about Megalane? (0 = strongly disagree, 10 = strongly agree)

- Megalane explained its actions well.
- Megalane took the right amount of responsibility for the event.
- Megalane acted responsibly.
- Megalane blamed the responsible person or party.
- Megalane accepted an appropriate amount of blame.
- Megalane gave appropriate perspective on the event.
- Megalane did the right thing for the organization.
- I believe Megalane used an appropriate response.
- I believe this response addressed any concerns raised about Megalane.
- Megalane responded in a trustworthy way.
- Megalane gave a sincere response.

Response Appropriateness (Bowen et al., 2017): How much do you agree with the following statements about Megalane? (0 = strongly disagree, 10 = strongly agree)

- The time Megalane took to respond was appropriate.
- Megalane released an appropriate amount of information regarding the fire.
- Megalane delivered an appropriate statement.
- Megalane delivered a sincere statement.
- Megalane handled the fire appropriately.
- Select strongly agree to prove you are reading.
- I believe that Megalane will be able to solve the problem that caused the fire.
- Megalane's response to the fire was defensive.*
- The released information regarding the fire was very transparent.
- Megalane took full responsibility for the fire.

Credibility (Kim & Park, 2017): How much do you agree with the following statements about Megalane? (0 = strongly disagree, 10 = strongly agree)

- Megalane was telling the truth.
- Megalane used a good spokesperson.
- Megalane was a credible source.
- Megalane was trying to do what it believes is best for society.
- Megalane had honest intentions.
- Megalane had a hidden agenda.*
- Megalane was telling the truth in its entirety.

Business Traits Including Sincerity Aaker, 1997; Xiao et al., 2017: To what extent do the following traits describe Megalane? (0 = not at all descriptive, 10 = extremely descriptive)

- Down-to-earth
- Honest
- Sincere
- Genuine
- Wholesome
- Cheerful
- Sentimental
- Friendly
- Reliable
- Hard working
- Secure
- Intelligent
- Technical
- Corporate
- Leader
- Confident
- Successful

Reputation (Coombs and Holladay Reputation): How much do you agree with the following statements? (0 = strongly disagree, 10 = strongly agree)

- Megalane is basically honest.
- Megalane is concerned with the well-being of its publics.
- I do *not* trust Megalane to tell the truth about the incident.*
- I would prefer to have *nothing* to do with Megalane.*
- Under most circumstances, I would *not* be likely to believe what Megalane says.*
- Choose strongly disagree to prove you are reading.
- Megalane is basically *dishonest*.*
- I do *not* trust Megalane to tell the truth about the incident.*
- Under most circumstances, I would be likely to believe what Megalane says.
- I would attend one of Megalane's events.
- Megalane is *not* concerned with the well-being of the public.*

Adapted Reputation: <u>As a result of this event</u>, how likely are you to do the following with the organization? (0 = less likely, 10 = more likely)

- Think positively about Megalane.
- Trust Megalane.
- Associate with Megalane.
- Attend one of Megalane's events.
- Believe what Megalane says.
- Trust Megalane with the well-being of someone I care about.

Demographics

What is your age in years?

What is your race?

- Asian / Pacific Islander
- Black or African American
- Caucasian or White
- Hispanic / Latino
- Native American
- Other
- Prefer not to answer

What is your gender?

- Man
- Woman
- Other (specify)
- Prefer not to answer

How do you identify politically? (0 = conservative, 10 = liberal)
0 – 10

Debrief: All participants saw this message at the end of the survey.
Thank you for taking time to participate in this survey! We want to let you know that the stories you have just read are not real. Megalane is not a real company. The real purpose of the study was to examine how different characteristics of crisis response affect attitudes toward organizations. We did not mean to harm you in any way by telling you this story, but it was the only way to accomplish the purpose of this research. We are grateful for your participation.

We kindly ask you not to talk to others about this study for the next few months so the story will be persuasive to future readers. Should you have any questions, please feel free to contact the lead researcher Tyler Page at tpage@umd.edu.

Please click next and you receive your code.

Appendix C: Experiment

Thank you for taking this quick survey! Please read the questions carefully and answer honestly. This survey includes a few questions designed to make sure you are reading. **If you miss one of these questions, your HIT will be rejected.**

In this study, you will read a series of news stories. Please read each carefully as you will not be able to go back after you have selected next. After you read the stories, you will be given a series of questions to answer about them.

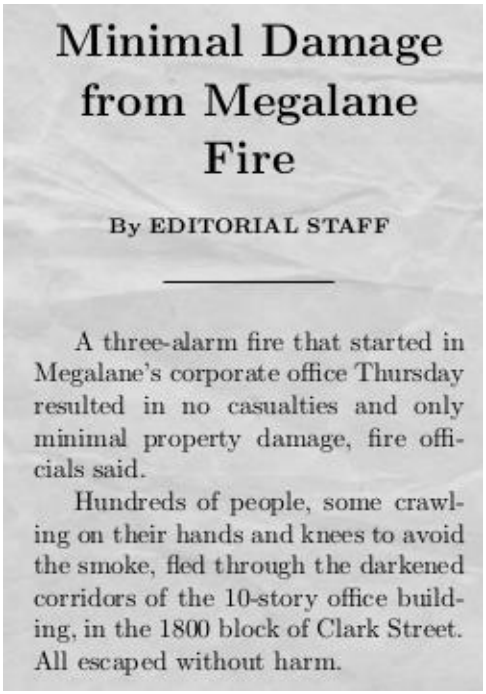
Participants were randomly assigned to read one of the following two vignettes (Crisis Introduced – Degree of Offensiveness Manipulated)

At Least 3 Dead, $10 million in Damage from Megalane Fire

By EDITORIAL STAFF

A three-alarm fire that started in Megalane's corporate office Thursday has killed at least 3 people and caused more than $10 million in property damage, fire officials said.

Hundreds of people, some crawling on their hands and knees to avoid the smoke, fled through the darkened corridors of the 10-story office building, in the 1800 block of Clark Street. Three did not make it out, and several more are hospitalized.



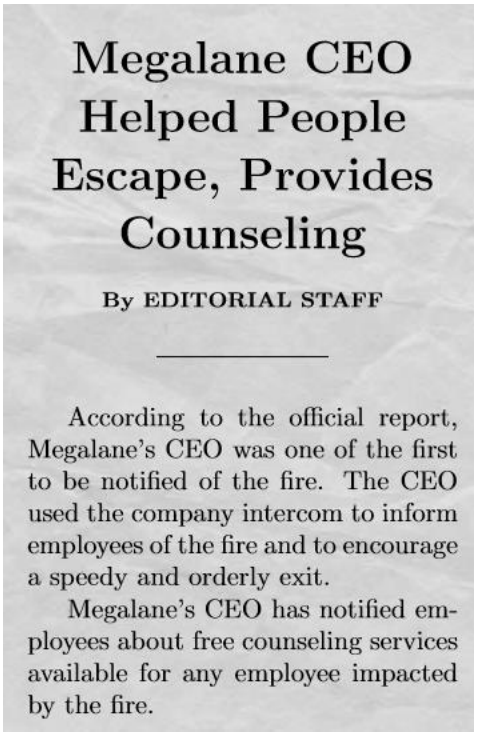
Minimal Damage from Megalane Fire

By EDITORIAL STAFF

A three-alarm fire that started in Megalane's corporate office Thursday resulted in no casualties and only minimal property damage, fire officials said.

Hundreds of people, some crawling on their hands and knees to avoid the smoke, fled through the darkened corridors of the 10-story office building, in the 1800 block of Clark Street. All escaped without harm.

Participants were randomly assigned to read one of the following four vignettes (Instructing Information & Adjusting Information Manipulated)

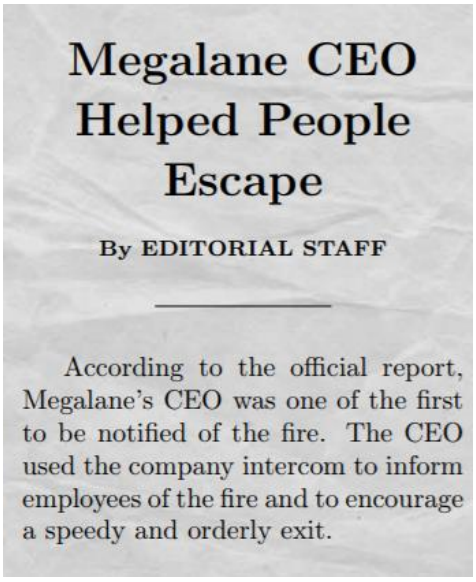


Megalane CEO Helped People Escape, Provides Counseling

By EDITORIAL STAFF

According to the official report, Megalane's CEO was one of the first to be notified of the fire. The CEO used the company intercom to inform employees of the fire and to encourage a speedy and orderly exit.

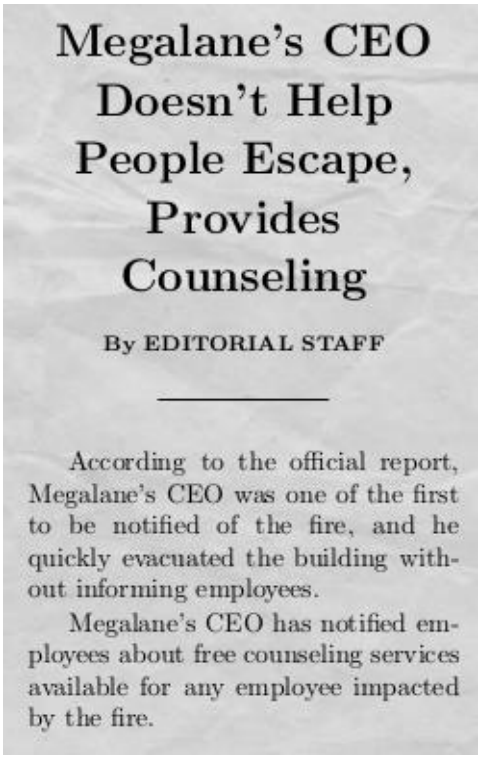
Megalane's CEO has notified employees about free counseling services available for any employee impacted by the fire.



Megalane CEO Helped People Escape

By EDITORIAL STAFF

According to the official report, Megalane's CEO was one of the first to be notified of the fire. The CEO used the company intercom to inform employees of the fire and to encourage a speedy and orderly exit.



Megalane's CEO Doesn't Help People Escape, Provides Counseling

By EDITORIAL STAFF

According to the official report, Megalane's CEO was one of the first to be notified of the fire, and he quickly evacuated the building without informing employees.

Megalane's CEO has notified employees about free counseling services available for any employee impacted by the fire.

Megalane's CEO Doesn't Help People Escape

By EDITORIAL STAFF

According to the official report, Megalane's CEO was one of the first to be notified of the fire, and he quickly evacuated the building without informing employees.

Participants were randomly assigned to read one of the two following vignettes (Crisis Response Manipulated)

Megalane CEO Denies Responsibility for Fire

By EDITORIAL STAFF

Megalane's CEO denied responsibility for last week's fire in a statement issued Monday.

"There is nothing we could have done to prevent this fire," the CEO said in a statement. "We are working hard to resume our normal operations."

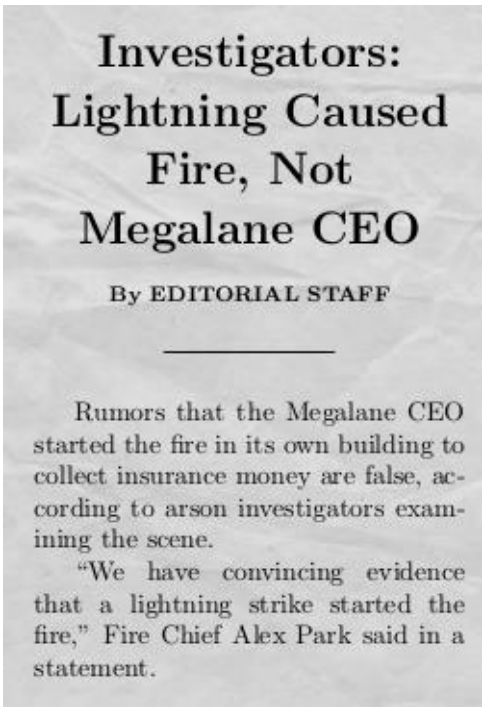
Megalane CEO Apologizes for Starting Deadly Fire

By EDITORIAL STAFF

Megalane's CEO apologized for starting last week's fire in a statement issued Monday.

"This fire was completely our fault," the CEO said in a statement. "We are deeply sorry to the victims of our terrible mistake."

Participants were randomly assigned to read one of the following two vignettes (Actual Story Manipulated)



Investigators: Lightning Caused Fire, Not Megalane CEO

By EDITORIAL STAFF

Rumors that the Megalane CEO started the fire in its own building to collect insurance money are false, according to arson investigators examining the scene.

"We have convincing evidence that a lightning strike started the fire," Fire Chief Alex Park said in a statement.

Investigators: Megalane CEO Caused Fire, Not Lightning

By EDITORIAL STAFF

Rumors that the Megalane CEO started the fire in its own building to collect insurance money are true, according to arson investigators examining the scene.

"We have convincing evidence that the CEO started the fire," Fire Chief Alex Park said in a statement.

All participants answered the following questions.

NOTE: The order of presentation of all questions, and all statements within each question, were randomized.

Attribution Griffin, Babin, & Darden, 1992: How much do you agree with the following statements? (0 = strongly disagree, 10 = strongly agree)

- Megalane was responsible for the event.
- Circumstances not in Megalane's control were responsible for the event.
- Megalane was to blame for the event.
- Circumstances not in Megalane's control were to blame for the event.

Severity (Zhou, Ki, & Brown, 2017): Indicate how much you agree with the following statements regarding the event. (0 = strongly disagree, 10 = strongly agree)

- I cared about the event.
- Further news about the event was of my interest.
- I hoped to know more about the event.
- I think the event interested me.
- The event increased my sense of stress.
- I felt quite anxious about the event.
- Select strongly agree to prove you are reading.
- My apprehension grew as I learned more about the event.
- I worried about the event.
- I felt influenced by this event.
- I found this event relevant to me.
- The event was meaningful to me.

Offensiveness & Virtuousness*: Indicate how much you agree with the following statements regarding the event. (0 = strongly disagree, 10 = strongly agree)

- Megalane caused someone to suffer emotionally.
- Megalane hurt someone's health.
- Megalane was cruel.
- Megalane made others safer.*
- Megalane took advantage of someone.
- Megalane cheated someone.
- Megalane was honest.*
- Megalane acted fairly.*
- Megalane showed love for its country.*
- Megalane did something to betray its people.
- Megalane was loyal.*
- Megalane mistreated its people.
- Select strongly disagree to prove you are reading.
- Megalane was trustworthy.*
- Megalane's actions caused chaos or disorder.
- Megalane broke the law.
- Megalane respected authority.*
- Megalane acted in a way that God would approve of.*
- Megalane acted in a pure and decent way.*
- Megalane did something disgusting.

Instructing Information: How much do you agree with the following statements about Megalane? (0 = strongly disagree, 10 = strongly agree)

- Megalane informed people who could be hurt.
- Megalane helped people know to get to safety.
- Megalane told people how to protect themselves.
- Select strongly disagree to prove you are reading.
- Megalane gave information to protect people who could be harmed.

Adjusting Information: How much do you agree with the following statements about Megalane? (0 = strongly disagree, 10 = strongly agree)

- Megalane gave information to ease suffering after the event.
- Megalane provided emotional support for people involved.
- Megalane helped people move forward after the event.
- Select strongly agree to prove you are reading.
- Megalane demonstrated its commitment to helping people involved.
- Megalane responded to people's needs after the event.

Reputation Management: How much do you agree with the following statements about Megalane? (0 = strongly disagree, 10 = strongly agree)

- Megalane explained its actions well.

- Megalane took the right amount of responsibility for the event.
- Megalane acted responsibly.
- Megalane gave appropriate perspective on the event.
- Megalane did the right thing for the organization.
- I believe Megalane used an appropriate response.
- Megalane responded in a trustworthy way.
- Megalane gave a sincere response.

Business Traits Including Sincerity Aaker, 1997; Xiao et al., 2017: To what extent do the following traits describe Megalane? (0 = not at all descriptive, 10 = extremely descriptive)

- Down-to-earth
- Honest
- Sincere
- Genuine
- Wholesome
- Cheerful
- Sentimental
- Friendly
- Reliable
- Hard working
- Secure
- Intelligent
- Technical
- Corporate
- Leader
- Confident
- Successful

Reputation (Coombs and Holladay Reputation): How much do you agree with the following statements? (0 = strongly disagree, 10 = strongly agree)

- Megalane is basically honest.
- Megalane is concerned with the well-being of its publics.
- I do *not* trust Megalane to tell the truth about the incident.*
- I would prefer to have **nothing** to do with Megalane.*
- Under most circumstances, I **would not** be likely to believe what Megalane says.*
- Choose strongly disagree to prove you are reading.
- Megalane is basically **dishonest**.*
- I **do not** trust Megalane to tell the truth about the incident.*
- Under most circumstances, I would be likely to believe what Megalane says.
- I would attend one of Megalane's events.
- Megalane **is not** concerned with the well-being of the public.*

Demographics

What is your age in years?

What is your race?

- Asian / Pacific Islander
- Black or African American
- Caucasian or White
- Hispanic / Latino
- Native American
- Other
- Prefer not to answer

What is your gender?

- Man
- Woman
- Other (specify)
- Prefer not to answer

How do you identify politically? (0 = conservative, 10 = liberal)
0 – 10

Debrief: All participants saw this message at the end of the survey.
Thank you for taking time to participate in this survey! We want to let you know that the stories you have just read are not real. Megalane is not a real company. The real purpose of the study was to examine how different characteristics of crisis response affect attitudes toward organizations. We did not mean to harm you in any way by telling you this story, but it was the only way to accomplish the purpose of this research. We are grateful for your participation.

We kindly ask you not to talk to others about this study for the next few months so the story will be persuasive to future readers. Should you have any questions, please feel free to contact the lead researcher Tyler Page at tpage@umd.edu.

Please click next and you receive your code.

Appendix D: Final Pilot A Factor Analysis

Communalities		
	Initial	Extraction
C1 Megalane caused someone to suffer emotionally.	.629	.548
C4 Megalane hurt someone's health.	.549	.566
C7 Megalane was cruel.	.688	.674
C12 Megalane made others safer.	.554	.546
F6 Megalane took advantage of someone.	.774	.694
F8 Megalane cheated someone.	.755	.673
F9 Megalane was honest.	.726	.686
F11 Megalane acted fairly.	.730	.692
L1 Megalane showed love for its country.	.540	.546
L2 Megalane did something to betray its people.	.652	.609
L4 Megalane was loyal.	.557	.556
L6 Megalane mistreated its people.	.658	.648
L10 Megalane was trustworthy.	.704	.734
A3 Megalane's actions caused chaos or disorder.	.591	.584
A7 Megalane broke the law.	.653	.579
A9 Megalane respected authority.	.570	.559
S1 Megalane acted in a way that God would approve of.	.531	.538
S3 Megalane acted in a pure and decent way.	.619	.631
S4 Megalane did something disgusting.	.623	.620

Extraction Method: Principal Axis Factoring.

Total Variance Explained						
Factor	Initial Eigenvalues			Rotated		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Offensiveness	8.219	43.260	43.260	6.308	33.201	33.201
Virtuousness	4.229	22.259	65.519	5.374	28.283	61.484

Note: Only factors with Eigen values above 1 are displayed here.

Rotated Factor Matrix

Statement	Offensiveness	Virtuousness
CARE1 Megalane caused someone to suffer emotionally.	.727	-.137
CARE4 Megalane hurt someone's health.	.752	.015
CARE7 Megalane was cruel.	.812	-.119
CARE12 Megalane made others safer.	.051	.737
FAIR6 Megalane took advantage of someone.	.819	-.151
FAIR8 Megalane cheated someone.	.808	-.142
FAIR9 Megalane was honest.	-.281	.779
FAIR11 Megalane acted fairly.	-.304	.775
LOY1 Megalane showed love for its country.	.041	.738
LOY2 Megalane did something to betray its people.	.772	-.110
LOY4 Megalane was loyal.	-.190	.721
LOY6 Megalane mistreated its people.	.793	-.137
LOY10 Megalane was trustworthy.	-.219	.828
AUTH3 Megalane's actions caused chaos or disorder.	.761	-.073
AUTH7 Megalane broke the law.	.735	-.196
AUTH9 Megalane respected authority.	-.113	.739
SANC1 Megalane acted in a way that God would approve of.	-.059	.731
SANC3 Megalane acted in a pure and decent way.	-.184	.773
SANC4 Megalane did something disgusting.	.759	-.209

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 3 iterations.

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