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RELATIVE EFFECTIVENESS OF BOLSTERING AND INOCULATION
APPROACHES IN CRISIS COMMUNICATION

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RELATIVE EFFECTIVENESS OF BOLSTERING AND INOCULATION APPROACHES IN CRISIS COMMUNICATION

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ABSTRACT

The purpose of this study was to explore the effectiveness of communicating to the public before a crisis occurs. Previous research on crisis communication has employed primarily atheoretical approaches that focus on strategies to be used once a crisis occurs. As suggested by previous researchers (Wan & Pfau, 2004), inoculation, a strategy designed to reinforce the public’s positive attitude toward an organization, may provide an alternative strategy to crisis management. The study utilized both affective and cognitive inoculation treatments, along with bolstering, corporate social responsibility, and control messages. Dependent variables included corporate reputation, attitude and purchase intention. The study also used a real-world crisis that impacted an actual company. Results indicated that both affective and cognitive inoculation, bolstering, and corporate social responsibility messages were equally effective in protecting a corporation’s reputation following crisis; however, there was no support for attitude, and only participants in the CSR condition reported greater intentions to purchase the company’s products following a crisis. The study also found no downside to inoculation when a crisis does not occur. In fact, inoculated participants rated the company involved in the crisis higher on all dependent variables including corporate reputation, attitude, and purchase intention than those participants in the control condition. The study also explored the role of affect in the counterarguing process. Previous researchers have met with minimal success when attempting to capture affect during the counterarguing process (Lee & Pfau, 1997). This study attempted to capture affect by employing a
recognition check-off list, an alternative method for measuring the construct, which has been used successfully in past studies (Pfau et al., 2004; 2005). In addition this study was the first to categorize counterarguments as either affective or cognitive in nature. As expected, cognitive inoculation treatments produced more cognitive counterarguments while affective inoculation treatments produced more affective counterarguments. Surprisingly, the study also found that participants rated affective counterarguments significantly stronger than cognitive counterarguments.
Chapter I

Traditional Approaches to Crisis Management

Although many organizations may think they are immune to a crisis, evening television news reports prove they are not. Crisis situations dominate today’s news coverage, from Martha Stewart’s obstruction of justice trial to the collapse of Enron to charges of racial discrimination at Denny’s restaurants. Pick up a newspaper any day of the week and you will find news stories about plane crashes, earthquakes, criminal investigations, food poisonings, and embezzlements. As Marconi (1992) observed, bad things happen to good organizations, and as many practitioners have detailed in various books and articles, one of the keys to dealing with crises is being prepared.

So just what is a crisis and how do you know when it happens to your organization? Fearn-Banks (2002) describes a crisis as “a major occurrence with a potentially negative outcome affecting the organization, company, or industry, as well as its publics, products, services, or good name. A crisis interrupts normal business transactions and can sometimes threaten the existence of the organization” (p.2). Barton (1993) states that a crisis is “a major unpredictable event that has potentially negative results” (p.2).

*The Impact of a Crisis*

The impact of a crisis on a company can be devastating, depending on how the company handles the situation. A poorly handled crisis can damage a company’s reputation or image, sometimes beyond repair, and lead to negative attitudes among stakeholders, lost revenue for the company and even legal problems. For example, a
study that analyzed the impact of crises on shareholder value revealed a 22% positive difference in stock price for companies that responded well to a crisis as opposed to those companies that responded poorly (Blythe, 2002). A scandal involving United Way’s CEO William Aramony in the early 1990s led to a budget crisis for the non-profit organization. The revelation of Aramony’s lavish lifestyle and misuse of organizational funds forced United Way’s national office to lay off 100 employees (Fearn-Banks, 2002). As Fombrun (2000), developer of the Reputation Quotient, states “…favourable perceptions crystallize into the intangible asset of a corporate reputation. These reputations have economic value because they affect a company’s bottom line” (p. 2). Willcocks (2001) believes a company “earns its reputation by what it does, not just what it says” (p. 45).

There is some debate among researchers about the term corporate image versus corporate reputation. For example, Dutton and Dukerich (1991) define image as the way that outsiders view an organization. Dowling (2001) defines a corporate image as a “global evaluation a person has about an organization,” whereas a corporate reputation is the “the attributed values evoked from the person’s corporate image” (p. 19). Dutton, Dukerich, and Harquail (1994) state that a company’s reputation and image often converge. A review of the literature finds that image and reputation are used interchangeably, but that reputation appears to be the term of choice when referring to stakeholder perceptions. Researchers have most often defined corporate reputation as a multi-dimensional construct that is based on individual stakeholders’ judgments of a company’s performance. As Fombrun, Gardberg and Sever (2000) state “a reputation is therefore a collective assessment of a company’s ability to provide valued outcomes to a
representative group of stakeholders” (p. 243). Despite this definition, most measurements of corporate reputation have fallen short, with researchers surveying perceptions from only one group of stakeholders, most often CEOs and financial analysts. Corporate reputation surveys often ignore the perceptions of other stakeholder groups such as customers, clients, employees, and shareholders (Fombrun, Gardberg, & Sever, 2000). In addition, survey items do not capture the perception of multiple stakeholder groups. Financial items appear most often in the surveys, followed by management items, thus confirming the existing bias toward investors and managers. To address these shortcomings, Fombrun et al. (2000) developed the Reputation Quotient, a six-dimension, 20-item scale that has been used extensively to measure corporate reputations. The Reputation Institute, a top think tank in the area of reputation management, champions the RQ, which has been demonstrated as a valid instrument for measuring corporate reputation (Fombrun, 2000; Willecocks, 2001). As stated previously, the term *image* is a broad concept that can entail many things and is often used interchangeably for *reputation*; therefore, for the purpose of this study the term *image* will be conceptualized as a multi-dimensional construct consisting of corporate reputation, attitude toward the company and purchase intention.

**Handling Crises**

It is true that crises are unpredictable and often strike suddenly. That is why a number of public relations practitioners have focused their efforts on proactive approaches to crisis communication in the form of crisis preparation. For example, Coombs (1999) outlines organizations’ need for crisis management and previous models
for implementing a crisis management program. All of the models emphasize
preparedness, while at the same time focusing on reactive strategies. The idea is for an
organization to be as prepared as possible to “react” properly to a crisis should one occur.
Although preparedness is seen as a proactive strategy, in the event of an actual crisis, the
strategies used are actually reactive because they occur after the crisis has happened. For
instance, most crisis communication texts emphasize the importance of developing a
crisis management plan and practicing the plan by periodically simulating various crisis
scenarios (Coombs, 1999; Fearn-Banks, 2002). Although the planning that goes into
crisis preparedness is proactive, implementing the plan once a crisis strikes is a reactive
process. It is impossible to anticipate and simulate every possible crisis situation an
organization might encounter; therefore, despite an organization’s best efforts to be
prepared, its response to a crisis situation will ultimately be reactionary, no matter how
much planning is done. Inoculation and bolstering provide alternatives for handling
crises. The implementation of inoculation and bolstering strategies occur before a crisis
happens and there are no steps that must be taken after a crisis occurs. Therefore,
inoculation and bolstering provide a truly proactive strategy for dealing with crises.

Most of the research on crisis communication centers on crisis management
efforts that utilize various models of communication. Coombs (1999) outlines a symbolic
approach, while Benoit (1995, 1997) focuses on efforts to restore one’s image and
minimize damages post-hoc. Fink (1986) provided the earliest model of crisis
management. Fink’s model divides a crisis into stages: the trigger event (acute); the
extended effort to deal with the crisis (chronic); and a clear ending (resolution). Fink was
the first to emphasize efforts to not only develop and implement a crisis management plan when needed, but also to identify and resolve issues that could lead to a crisis (Coombs, 1999). Sturges (1994) elaborates on Fink’s model by emphasizing that different actions are required during various stages of the crisis. For example, immediately following a crisis such as a plant explosion, employees need information such as whether they still have a job. At the conclusion of the crisis, a different communication strategy may need to be employed such as bolstering employees’ belief in the company’s financial future and newly implemented safety measures. Both Mitroff (1994) and Fearn-Banks (2002) break the crisis management model into five phases: detection; prevention; containment; recovery; and learning. Mitroff and Fearn-Banks also put more emphasis on prevention and detection than Fink. The Mitroff and Fearn-Banks models also differ with the Fink model in that Mitroff and Fearn-Banks emphasize the role the crisis management team plays in helping the organization recover from the crisis. Fink’s model simply states that organizations can recover. Furthermore, the Fink model marks recovery as termination of the crisis, whereas the Mitroff and Fearn-Banks models are cyclical and emphasize the constant learning process involved with improving crisis management efforts.

Coombs (1999) uses a three-stage crisis management model. Although it has no clearly identifiable author, the three-stage model has been recommended by a number of public relations experts including Birch (1994), Guth (1995), and Woodcock (1994). According to Coombs, the three-staged model is broken down into precrisis, crisis and
postcrisis phases, and both the Fink (1986), Mitroff (1994), and Fearn-Bank (2002) models fit nicely within the three-staged model. According to Coombs (1999):

The precrisis stage encompasses all aspects of crisis preparation…the crisis stage includes the actions taken to cope with the crisis or trigger event – the time span when the crisis is being resolved…the postcrisis stage reflects the period after the crisis is considered to be over or resolved. (p. 13)

As stated above, Fearn-Banks (2002) uses the five-stage model and describes the stages as follows: the detection phase usually begins with warning signs; the prevention stage emphasizes communication with stakeholders and relationship building; the crisis preparation stage involves the development of a plan for those crises that cannot be prevented; the recovery phase focuses on efforts to return the company to “business as usual” (p. 12); and the learning phase involves a process of critiquing the handling of the crisis. Fearn-Banks also stresses the importance of understanding crisis communication theories, which “explain why various techniques and tactics are or are not successful, whether the same techniques can be expected to work in future crises, and how the techniques can be altered to produce desired results” (p. 15).

Despite Fearn-Banks’ (2002) definition of crisis communications theory, most crisis management studies have remained atheoretical, relying on anecdotes instead of solid theory. Early crisis communication studies have focused on the summary and analysis of how an organization did or did not handle a crisis properly (Brown, 2003; Greer & Moreland, 2003; Hearit, 1996; Ihlen, 2002; Kauffman, 2000, 2001; Martinelli & Briggs, 1998; Wigley, 2003) and suggest steps for handling a crisis after it occurs. Some
of these steps include creating a crisis team, notifying key publics, developing key messages, establishing a crisis control center and monitoring and evaluating the crisis both during and after its life cycle (Fearn-Banks, 2002; Wan & Pfau, 2004). The emphasis, as stated above, is on being prepared to react when and if a crisis occurs.

More and more, public relations practitioners are emphasizing proactive strategies when dealing with crisis situations. These strategies most often involve issue management and relationship maintenance. Issues management is outlined in a number of communications management models and involves the monitoring of hot-button issues and problems that can be defused before actually becoming a crisis (Coombs, 1999; Herrero & Pratt, 1996). Reputation management closely resembles Grunig and Grunig’s (1992) two-way symmetrical model and emphasizes open dialogue and positive communication between an organization and its stakeholders that can transfer to good will and lessen the damage to an organization in the event of a crisis (Coombs, 1999; Hutton, Goodman, Alexander, & Genest, 2001). Goodwill between an organization and its stakeholders also can be maintained through philanthropic donations and community involvement. Examples include McDonald’s support of Ronald McDonald House charities and the National Football League’s well-known support of United Way. This practice is often referred to as corporate citizenship or corporate social responsibility. Proactive strategies also emphasize the importance of being prepared in the event of crisis. As Fisk (1986) states “the time to begin crisis communications is when there is no crisis and when it is possible to create a reservoir of goodwill” (p. 96). Besides issues management and relationship maintenance, other proactive strategies include developing
a crisis management plan and practicing the plan; however, as stated previously, these strategies are proactive only in the sense that they are executed before a crisis occurs.
Chapter II
Exploring Alternatives to Traditional Crisis Management

Although most academic research has focused on the handling of a crisis after it occurs, alternative methods for dealing with potential crises do exist. Some researchers believed that it may be possible to pre-empt the impact of a crisis by communicating with the public before the crisis occurs (Wan & Pfau, 2004). Two of these pre-emptive measures include bolstering and inoculation, or what is commonly referred to as resistance to influence. This chapter will explore these two possible alternatives to traditional crisis management and introduce an additional strategy – the communication of corporate social responsibility messages.

Despite public relations practitioners’ best efforts, the strategies outlined in most crisis communications literature are post-hoc and can only partially minimize the damage done once a crisis occurs. This study attempts to look beyond issues management and image building via relationship maintenance by exploring sound, theoretical concepts that can potentially protect an organization’s image in the event of a crisis. Crisis management scholars employ both proactive and reactive communication strategies. Proactive approaches rely on building good will toward the organization through image building and relationship maintenance, while reactive crisis strategies rely on apologia and concepts such as staying on message (Benoit, 1995). However, despite scholars’ best efforts, both strategies fall short. Most crisis management research focuses on using communication either during or after a crisis occurs. The exception is image building and relationship maintenance in which a company communicates its sound business practices
and products. This strategy, often referred to by scholars as bolstering, offers supportive treatment messages that supply reasons for holding an attitude. Corporate social responsibility, on the other hand, offers supportive messages that do not deal with a company’s sound business practices and products, but rather its contributions to the wider society. Instead of focusing only on profit, companies practicing corporate social responsibility focus on legal, ethical, and philanthropic responsibilities, such as contributions to the community (Carroll, 1991).

Both bolstering and the promotion of corporate social responsibility activities may fall short when communicating to stakeholders before a crisis occurs. That’s because they do not directly deal with a company’s susceptibility to crises. Inoculation treatment messages, on the other hand, offer messages that feature arguments contrary to initial attitudes and responses, or refutations, to those arguments (McGuire, 1961a, 1962, 1964; McGuire & Papageorgis, 1962).

Both inoculation and bolstering strategies offer true proactive alternatives to crisis preparedness and management by focusing on the use of communication with stakeholders before a crisis occurs, with inoculation specifically emphasizing that although companies are susceptible to crises every reasonable step has been taken to avert potential crises. This study will attempt to shore up gaps in the crisis communication literature by introducing the concept of inoculation as an alternative approach to crisis management. Inoculation is a theory that helps prevent attitude change by exposing subjects to a counterattitudinal attack and then providing rebuttals for the attack. The idea is to “inoculate” receivers so they will be less susceptible to arguments.
and attitudes that differ from their own. The study also will explore the role of bolstering and promotion of a company’s corporate social responsibility activities, which provide supportive messages regarding one’s attitude.

**Proactive Bolstering and Inoculation**

Although the study of inoculation began with McGuire’s comparison of supportive and refutational messages (McGuire, 1961a), bolstering gets little theoretical focus among scholars. Most research comparing bolstering and inoculation address individual attitude about issues and are conducted in a laboratory setting. Previous research has revealed that both bolstering and inoculation strategies are superior to doing nothing when attempting to protect a person’s attitude from slippage. The term slippage refers to the idea that should a crisis occur, a person’s attitude toward the company involved in the crisis would likely worsen, weaken or deteriorate. However, previous studies have also indicated that inoculation is superior to bolstering (Anderson & McGuire, 1965; Crane, 1962; McGuire, 1961a; McGuire & Papageorgis, 1961, 1962; Tannenbaum & Norris, 1965; Tannenbaum et al., 1966). McGuire concludes that because supportive or bolstering messages are non-threatening, they leave receivers overconfident about their beliefs and thus bolstering messages are less effective than inoculation messages.

McGuire (1961a) was the first to introduce the concept of inoculation. He was concerned with the vulnerability of people’s attitudes in “forced exposure situations” (McGuire & Papageorgis, 1961, p. 372). While a number of early researchers looked at persuasion, McGuire focused his efforts on conferring resistance to persuasion, also
referred to as resistance to influence. McGuire described the concept of inoculation by using a biological or medical analogy. He likened inoculation to a situation in which a person becomes immune to a virus by being pre-exposed to a weakened dose of the virus, as in the case of a flu shot. The mild dose, which is not strong enough to actually cause the disease, stimulates one’s defenses so he or she is better able to overcome an attack later on. McGuire’s early work in the area of inoculation focused on cultural truisms, ideas that are commonly taken for granted and rarely questioned in society. Such cultural truisms often included: the importance of brushing one’s teeth after every meal and the idea that mental illness is not contagious. McGuire chose to focus on these cultural truisms because they rarely, if ever, had been attacked. He wanted to know if inoculation would work for people who had never been exposed to the virus or had their ideas uncontaminated by counterarguments. Inoculation proved to be effective when used with cultural truisms, and thus led to subsequent research, which provided support for inoculation’s effectiveness when applied to controversial issues (Anatol & Mandel, 1972; Burgoon, Cohen, Miller, & Montgomery, 1978; Miller & Burgoon, 1979; Ullman & Bodaken, 1975). Since the 1970s, inoculation studies have dealt almost exclusively with controversial topics such as banning handguns, restricting TV violence, legalizing marijuana, etc. (Nabi, 2003; Pfau et al., 1990, 1997, 2000, 2004, 2005).

The Theoretical Approach of Inoculation

Two of the core elements of inoculation are threat and refutational preemption. Threat is conceptualized as a forewarning of an impending challenge to existing attitudes (Wan & Pfau, 2004). Refutational preemption is conceptualized as the process in which
challenges to existing attitudes are raised and then answered. Although threat and refutational preemption work together to produce the inoculation effect, threat is the more critical component because it provides the motivation for subjects to defend their beliefs. “Once motivated, receivers strive to strengthen their attitudes using the content provided through refutational preemption as well as other material” (Pfau, 1997, p. 137).

According to Pfau, it is the threat component that makes inoculation work. In fact, without generated threat, inoculation treatments fail to produce optimal resistance (McGuire, 1962, 1964; McGuire & Papageorgis, 1961; Pfau & Burgoon, 1988). However, threat alone, does not provide optimal resistance to influence; researchers have confirmed that inoculation works best when both threat and refutational preemption are used in tandem (McGuire & Papageorgis, 1962). Another component of inoculation is counterarguing, a process that occurs following inoculation. Threat, which is produced in the inoculation treatment stage, ultimately leads to counterarguing, a process in which subjects are asked to write down possible counterarguments and messages that can be used to refute such counterarguments. The idea is that inoculation treatments, which produce attitude vulnerability, lead to threat, which motivates receivers to compile an arsenal of arguments for those who disagree with their attitudes.

**The Use of Bolstering and Inoculation in Crisis Communication**

Burgoon, Pfau, and Birk (1995) were the first to apply inoculation to the practice of public relations. The study included a detailed look at Mobil Oil Corporation’s long-running issue advertising campaign. The researchers reasoned that Mobil Oil’s goal was to bolster its supportive publics’ attitudes about the corporation, rather than convert
opponents. Instead of persuading people, the campaign inoculated supporters against possible attacks. Wan and Pfau (2004) applied inoculation to a specific public relations domain - crisis communication. Because crises are inevitable, it is important that organizations take steps to protect their image. Although most research on crisis communication has used primarily post-hoc strategies, Wan and Pfau (2004) applied inoculation by using preemptive approaches to protect an organization’s image in the event of a crisis. The researchers used both image promotion, a strategy that resembles bolstering, and inoculation. Image promotion, like bolstering, seeks to foster positive attitudes toward a target and generate “good will” that can serve as a buffer in the event of a crisis. Inoculation confronts an organization’s crisis vulnerabilities and provides preemptive refutations that detail what the organization is doing to avert the potential crisis (Wan & Pfau, 2004). The researchers looked at supportive/bolstering messages, inoculation treatments comprised of both refutation-same and refutation-different messages, a combination of supportive and inoculation messages, and a control condition. Refutation-same messages offer and refute the same arguments contained in the attack message, while refutation-different messages offer and refute different arguments than the ones featured in the attack. Previous research has shown that both confer resistance to influence (McGuire, 1961a; McGuire & Papageorgis, 1962; Pfau & Burgoon, 1988; Pfau et al., 1997, 2004). Subjects were assigned to one of the experimental conditions and then exposed to either a crisis scenario that involved a hypothetical crisis at an actual petroleum company or a non-crisis scenario that involved an actual petroleum company absent a crisis. Results indicated that all approaches effectively conferred resistance, but
that inoculation was superior to supportive/bolstering messages. These findings confirm
previous research that also found inoculation superior to supportive treatments in
conferring resistance to influence (McGuire, 1961a, 1962; McGuire & Papageorgis,
1961; Tannenbaum & Norris, 1965; Tannenbaum et al., 1966) and leads to the conclusion
that although both supportive bolstering messages and inoculation work to confer
resistance, inoculation should work better in the event of a crisis. This study will go
beyond Wan and Pfau (2004) by exploring the impact of bolstering and inoculation using
a real-world crisis involving an actual company. In addition, the study will use a video
newscast for the attack condition.

*H1:* Compared to controls (no proactive message),
(a) bolstering approaches are effective in minimizing the damage to an
organization's image that follows a crisis
(b) and inoculation approaches are effective in minimizing the damage to an
organization's image that follows a crisis.

*H2:* Compared to bolstering, inoculation messages are superior in minimizing the
damage to an organization's image that follows a crisis.

*CSR as a Bolstering Strategy*

Although previous inoculation research has found support for the use of
bolstering, or image promotion, in conferring resistance to influence, no studies have
looked specifically at the promotion of a company’s corporate social responsibility
activities and their impact following a crisis. As stated previously, CSR refers to a
company’s contributions to the community and responsiveness to society as a whole.
CSR appears to be an ideal strategy for pre-empting a crisis situation. As Smith (2003) states “the modern corporation has benefited from CSR as a result of avoiding or pre-empting legal or regulatory sanctions…” (p. 59). Therefore, it seems surprising that CSR has not been explored as a possible pre-emption strategy for resistance to influence until now.

Definition of CSR

Corporate social responsibility, sometimes referred to as corporate philanthropy or corporate citizenship, can be traced back in the United States to the early 1900s (Useem, 1987) when image problems caused wealthy business owners such as Henry Ford and Andrew Carnegie to support charitable causes. These business owners were often criticized because of their business practices; therefore, they used corporate philanthropy as a way to create good will (Clark, 2000). Friedman (1962) was against such practices and argued in his book, *Capitalism and Freedom*, that companies have only one social responsibility – to increase profits. He believed that by providing jobs and producing goods that people could afford, a business was fulfilling its obligation to society. Most disagreed, as evidenced by the increase in CSR activities through the latter part of the 20th century.

Although some believe that social responsibility peaked during the 1960s and 1970s when social activism was at its height, others, like Heath (1997) and Smith (2003) believe society’s expectations of corporations are higher today than they were 40 years ago. The public expects companies to help the communities and societies in which they operate (Drucker, 1974). For example, a *Business Week/Harris* Poll found that 95 percent
of Americans believe companies should forgo profits for improving their communities (Tschirhart, 1997, p. 63). At least one vocal scholar disagreed with the concept of CSR.

Over the years, a number of scholars have defined the concept of corporate social responsibility (Bowen, 1953; Pava & Krausz, 1995). Some, like Davis (1973), believed that corporate social responsibility begins where legal compliance ends. Others, like Carroll (1979), offered four categories of corporate social responsibilities – economic, legal, ethical and discretionary responsibilities. Carroll (1991) later revised the four-part definition by replacing “discretionary responsibilities” for “philanthropic responsibilities.” Some, like Andriof and McIntosh (2001), believe corporate social responsibility goes beyond making a donation to a cause, and a majority of business executives agree. An article from *Harvard Business Review* reported that more than 80% of U.S. executives believe their companies should not limit philanthropic contributions to financial support (Tichy, McGill, & St. Clair, 1997). There are differing opinions about what types of activities social responsibility entails. Some researchers and practitioners believe social responsibility should include not only community and philanthropic activities, but also obeying the law and treating employees appropriately (Tichy, et al., 1997). Carroll (1979) believes social responsibility should also include legal and ethical matters. However, because of the obvious benefits of obeying the law and dealing ethically with people, this study will conceptualize social responsibility as philanthropic, social and community activities so as to measure the benefits of such acts.

A number of scholars have attempted to define corporate social responsibility. Definitions vary slightly, but most agree that corporate social responsibility is about
doing good in the community (Deetz, 2003; Kotler, 1991). As Mohr et al. (2001) explain, “firms are under increasing pressure to give money to charities, protect the environment, and help solve social problems in their communities – in other words to behave in socially responsible ways” (p. 45).

**Theoretical Application of CSR**

For decades now, scholars and professionals have espoused the importance of companies systematically communicating to the public about their good deeds. Ray Kroc, the founder of McDonald’s, was one of the first to recognize the impact corporate social responsibility could have on a company. He not only thought it was important for companies to give back to the communities in which they operate, but he also saw the impact this good will could have long-term (“Trust Bank Speech,” 1994). Kroc believed in an imaginary “trust bank” where companies could deposit their good deeds and then withdraw them during times of crises. Kroc felt that if a company gave back to its community, the public would be more forgiving during difficult times. Some scholars agree. Bhattacharya and Sen (2004) believe that consumers reward socially responsible companies “through their ‘resilience to negative information about the company’” (p. 19). The scholars theorize that consumers are more likely to forgive a company for an inadvertent error if that company has previously and actively practiced CSR. They emphasize that companies should view CSR strategically and realize its potential long-term effects. Hess, Rogovskv, and Dunfee, (2002) make a similar assertion by theorizing that McDonald’s escaped the wrath of the 1992 riots in Los Angeles because of the good they do in the local community.
Indeed, McDonald’s has been practicing corporate social responsibility since 1957. Its CSR programs include Ronald McDonald Houses that help families of ill children and support of the Special Olympics. *Time* magazine called McDonald’s “one of the nation’s few truly effective social engineers” and described them as “one of the more socially responsible companies in America” (“Celebrating 35 Years,” 1992).

McDonald’s is not shy about letting the public know that it supports worthy causes. The company actively promotes its good deeds through public relations efforts, cause-related marketing opportunities and paid advertising. Other companies that actively practice and promote their social responsibility efforts include Johnson & Johnson, ExxonMobil, ChevronTexaco, Dayton-Hudson, and Ben & Jerry’s ice cream.

Empirical evidence supporting corporate social responsibility’s impact is conflicting. Researchers summarized 20 years of empirical and theoretical research and found 12 studies that reported a positive association between social responsibility and financial performance and one study that reported a negative association. Eight studies reported no association (Pava & Krausz, 1995). The scholars also conducted their own investigation with 53 firms and found that social responsibility occasionally leads to better financial performance.

Moskowitz (1972) discovered that firms ranking higher on corporate social responsibility reported higher than average stock returns; but when Vance (1975) attempted to replicate the study, he found no support for these findings. Other researchers also have failed to find support for an association between financial profit and social
responsibility (Arlow & Gannon, 1982; Aupperle, Carroll, & Hatfield, 1985; Cochran & Wood, 1984).

Survey research has revealed that 70% of consumers said they were more likely to purchase products from a socially responsible company (Gildea, 1994-1995; Smith & Alcorn, 1991), while 50% of respondents claimed they would not buy from an organization that was not socially responsible (Gildea, 1994-95). Other researchers also found that consumers purchase products based on a corporation’s support of a cause (Ross, et al., 1990-1991; Ross et al., 1992). Overall the studies appear to support the notion that corporate social responsibility positively impacts consumers’ purchase intentions; however, there are problems with survey research. For example, the studies mentioned above could suffer from a social desirability response bias and may overestimate the impact of corporate social responsibility on consumer purchases. In addition, actual behavior is more costly than answering questions about one’s behavior (Mohr et al., 2001).

Several studies have used experiments to test the influence of corporate social responsibility. A corporation’s promise of a donation to charity led to more positive attitudes toward the corporation’s message but it did not impact attitude toward the corporation or purchase intention (Berger, Cunningham & Kozinets, 1999; Holmes & Kilbane, 1993). Murray and Vogel (1997) used fictitious newspaper articles, one describing a company’s prosocial activities and one that did not, and found that respondents had significantly more positive attitudes and behavioral intentions toward the company when its prosocial activities were detailed. There were no differences in
consumers’ responses to ads promising a donation to charity versus those that mentioned no such donation, but responses were more positive when the charitable cause was viewed as important (Lafferty, 1996). An experiment by Sen, Bhattacharya, and Korschun (2006) revealed that people who were aware of an organization’s CSR activities had greater organizational identification with the company and indicated a greater intent to purchase products. By looking at CSR from a multiple stakeholder perspective, the researchers also found that CSR activities can positively impact not only attitude and purchase intention, but also intent to seek employment and invest in the company. Drumwright (1996) explored social advertising campaigns and found that although the advertisements did not positively impact the company’s bottom line, they were successful at motivating the company’s workforce and communicating the company’s mission.

Results from previous studies are mixed. There appears to be some support for a positive impact on consumers’ attitudes and little support for an impact on purchase intentions. Clearly, there is little evidence that corporate social responsibility hurts companies financially; however, there is some evidence suggesting that it may not help either. After reviewing 127 CSR studies, Margolis and Walsh (2003) agreed. The researchers said they found little evidence of a negative association between a company’s CSR activities and its financial performance. However, Margolis and Walsh, unlike some scholars that have reviewed dozens of previous CSR studies, do believe that overall past research reveals a positive association between a company’s CSR activities and its financial performance.
Several researchers, however, have found an occasional downside to CSR activities. For example, a study conducted by Sen and Bhattacharya (2001) revealed that CSR activities can, under certain conditions, actually decrease consumers’ purchase intentions. The researchers identified several key moderators of consumers’ responses to CSR initiatives including the type of CSR issue the company focuses on and the quality of its products. Although Brown and Dacin (1997) found that CSR can have a positive impact on consumers’ responses to new products, the researchers also discovered that consumers’ negative perceptions of a company’s CSR activities can negatively impact product evaluations. Berens, van Riel and van Bruggen (2005) explored brand dominance and CSR activities and found that CSR has limited and moderating effects, which are dependent on consumer involvement in the product and the fit between the brand and the product.

Not all companies that practice corporate social responsibility actively promote their efforts to the public. Some companies see no benefit to promoting their good deeds other than tax write-offs (Walker, 1987). For example, J.P. Morgan and Sara Lee Corporation have a policy of not actively seeking publicity for their good deeds while others, like Nike and McDonald’s, frequently publicize their good works to the public (Tichy, et al., 1997).

Daughtery (2001) says companies should publicize their charitable giving to enhance their position in the marketplace. Abdeen (1991) claims that disclosure of corporate social responsibility efforts can increase consumer loyalty, while Andreasen (1995) suggests that behavior change can be activated if companies “make the hidden
benefits visible” (p. 283). Despite these recommendations, research reveals that most consumers are not aware of companies’ CSR activities (Sen, et al., 2006). The fact that only 10% of firms promote their social responsibility activities to the public (Marx, 1992-1993) has lead to low levels of awareness among consumers. Companies don’t hesitate to promote the superiority of their products or services but for some reason they are less inclined to promote their philanthropic efforts to the public.

Consumers appear divided over the idea that companies should actively promote their social responsibility activities. In a recent study some participants stated that companies should increase promotion of their social initiatives, while others said they consider this type of publicity as distrustful and self-serving (Mohr et al., 2001). Obviously, consumers must become aware of a corporation’s social responsibility activities in order for it to impact their purchase decisions (Mohr et al., 2001). Mohr et al. (2001) conducted in-depth interviews with consumers and found they did not feel knowledgeable enough to make purchase decisions based on corporations’ social responsibility activities. Subjects also indicated they did not know how to acquire such information and that it also would be difficult to acquire.

Are companies making a mistake by failing to disclose their good works to the public? Could promoting these good works generate good will that might be tapped later in the event of a crisis? Previous research indicates that bolstering, or image promotion, helps confer resistance to influence following a crisis (Wan & Pfau, 2004). Therefore, it seems likely that the promotion of a company’s CSR activities, a specific type of bolstering or image promotion, will do the same. This leads to the following hypothesis:
Compared to controls (no proactive message), the promotion of a company’s corporate social responsibility activities is effective in minimizing the damage to an organization’s image that follows a crisis. Previous research has found that bolstering or image promotion works when attitudes are challenged but not as effectively as inoculation (McGuire, 1961a, 1962; McGuire & Papageorgis, 1961; Tannenbaum & Norris, 1965; Tannenbaum et al., 1966). Bolstering typically features positive messages about a company, its products, and financial situation but not about its philanthropic efforts. Corporate social responsibility messages, however, emphasize the good things a company does to give back to the community, such as donating money to non-profits, supporting worthy causes and encouraging employees to volunteer (Davis, 1973; Deetz, 2003; Kotler, 1991). Unlike inoculation, which features both positive and negative messages, bolstering and corporate social responsibility strategies involve the promotion of only positive messages. Although bolstering has been found to be effective in resistance to persuasion research, will it be any more or less effective than the promotion of a company’s CSR efforts? This leads to the following question:

RQ1: Which is more effective in minimizing the damage to an organization’s image that follows a crisis – bolstering or the promotion of a company’s corporate social responsibility activities?

Although researchers have found evidence for the effectiveness of inoculation in public relations and specifically crisis communication, there is a possible downside. Wan and Pfau’s (2004) findings indicate that exposing an organization’s vulnerabilities may
have a cost. As stated previously, all treatment conditions were effective in protecting the organization from slippage following subjects’ exposure to a crisis; however, researchers also discovered that in the non-crisis scenario, the supportive/bolstering message was slightly superior to any of the inoculation treatment messages. Therefore, absent a crisis (or pending a crisis), inoculation’s raising of vulnerabilities did some damage to organizational reputation. This leads to the following question:

*RQ2*: Do inoculation messages undermine an organization's image absent a crisis?
Chapter III

Nuances in Inoculation

Although inoculation has been studied by researchers for more than four decades, there is still much to learn about the inner-workings of the theory. This chapter will examine several important and unexplored areas of inoculation theory, including the role of affect in the counterarguing process, the effectiveness of cognitive versus affective counterarguments, the strength of cognitive versus affective counterarguments, and the processing of inoculation messages according to Cognitive-Experiential Self Theory, or CEST (Epstein & Pacini, 2001).

Affect

Although inoculation theory has been studied extensively over the past 40 years, much work remains in the area of affect, especially how affect may be involved in the internal process of resistance. It should be noted that “affect” often causes confusion when researchers fail to clearly define it. Affect is an umbrella term used to describe moods, emotions, drives and feelings (Izard, 1993). Some researchers use “emotions” to refer to specific and short-lived states and feelings and “moods” to refer to more global, enduring states (Schwarz & Clore, 1996). Affect is most often seen as falling somewhere along a continuum, ranging from good to bad or positive to negative (Dillard, 1998; Eagly & Chaiken, 1993). For the purpose of this study, the term “affect” will be conceptualized as “emotions” or more specific, short-lived states and feelings, such as anger, disgust, pride and fear. According to Dillard (1998), affect can manifest itself before, during or after the communication process. As for its relationship to cognition,
affect has been described by scholars as occurring either simultaneously with cognition or before it (Lazarus, 1982; Zajonc, 1980, 1981, 1984).

Although advertising scholars recognize affect’s influence on consumers, public relations scholars are just beginning to acknowledge affect’s impact on consumer decision-making (Pfau & Wan, 2006). As Pfau and Wan state, “despite extensive use of affect in corporate advertising campaigns that seek to enhance image and the use of corporate sponsorships to establish perceptual linkages based on affect, public relations scholars have largely ignored this domain” (p. 117). As mentioned previously, social influence scholars have also given scant attention to affect over the years. Inoculation has been assumed to be a mostly cognitive process in which threat motivates individuals to counterargue, which in turn leads to resistance; therefore, cognition has been the focus of most resistance to persuasion research. However, the acknowledgement by researchers that affect occurs either along side or prior to cognition has led some researchers to begin exploring affect’s impact in the resistance process.

Crane (1962) first introduced the idea that the inoculation process may need to treat cognition and affect separately. Researchers largely ignored Crane’s warning until Lee and Pfau (1997) looked at the efficacy of both cognitive and affective inoculation messages. The researchers prepared both treatments and attack messages that were designed to produce both positive and negative emotions. As the authors predicted, the cognitive messages promoted the most resistance; however, both negative-affective and positive-affective treatments also conferred resistance to cognitive attacks. Unfortunately, manipulations for the study were weak because the participants receiving affect-based
inoculation messages did not report significantly more affect than those receiving cognitive messages.

Pfau, Szabo, and colleagues (2001) followed up on Lee and Pfau’s (1997) findings by comparing cognitive, affective-anger and affective-happiness inoculation treatments by utilizing Lazarus’ (1991) appraisal theory. The theory is based on goal attainment and posits that when a person’s goal is facilitated, he or she will experience positive affect and when a person’s goal is impeded, he or she will experience negative affect. The researchers constructed affective-happiness treatments to suggest the promotion of goal attainment and affective-anger treatments to suggest the obstruction of goal attainment in addition to cognitive messages. All three treatments conferred resistance and all treatments elicited threat. “The results indicated that affective-happiness treatments were superior to either cognitive or affective-anger in promoting resistance to attacks” (Pfau et al., 2001, p. 242). The authors go on to state that there is no logical explanation for this outcome and that “whatever it is that is responsible for the superiority of affective-happiness treatments, it is not the mechanisms of threat or counterarguing” (p. 242).

The authors posed explanations for this unexplained finding. First, they posited that the affective-happiness treatments might have bolstered subjects’ attitudes by simply assuring them their attitude was appropriate and that they could defend against attack, thereby fostering resistance to attack. A second plausible explanation the researchers posited is that affective happiness treatments unleash a heuristic process of resistance. Although the Pfau et al. (2001) study was unable to detect this, other researchers (Lee &
Pfau, 1997) found that video inoculation treatments, which are undoubtedly more affective in nature, employ an alternative route to resistance in which message source takes precedence over message content (Pfau et al., 2001). Structural equation models conducted for the Pfau et al. (2001) study found that affective-happiness treatments led directly to resistance with no threat or counterarguing involved. The finding that happiness treatments conferred resistance completely independent of receiver counterarguing, a process that involves active, cognitive processing, implies that affect and not cognition, may be playing an important role in the inoculation process. Whatever the case, something else must be occurring during the inoculation process as evidenced by the direct path from the happiness treatments to resistance. In addition, both Pfau et al. (2001) and Pfau et al. (1997) “have demonstrated both a direct and indirect path through threat as dual routes to resistance” (Pfau et al., 2001, p. 243). Although threat may motivate people to resist a subsequent attack, “threat and counterarguing alone do not fully explain inoculation’s impact” (p. 243). The direct path from inoculation to resistance demonstrated in the structural equation models of two studies suggests either that it is the refutational component of inoculation that contributes to resistance, or yet unidentified and untested factors are contributing to the process of resistance.

The fact that researchers have found possible evidence for the role of affect in the inoculation process is not surprising. Zajonc (1980) has long championed the important role affect plays in attitudes, judgments and behavior. Zajonc (1980) states that people trust their feelings. “The reason why affective judgments seem so irrevocable is because they ‘feel’ valid” (Zajonc, 1980, p. 157). Zajonc states we are never wrong about what
we like or dislike and that we trust our reactions and instincts. Zajonc (1980) also argues that affectively-based attitudes may be more persistent than cognitively-based ones, reasoning that once a cognitive attitude is formed, individuals can accept the fact they can be wrong, but they are less likely to be persuaded they are wrong regarding what they like or dislike. According to Zajonc (1980), affective judgments seem less revocable than cognitive judgments because they “feel” inherently valid to individuals: “We trust our reactions; we believe that they are ‘true’ and that they accurately represent an internal state or condition” (p.11). Although previous studies indicate that affect is playing some type of role in the resistance process, it is still unclear as to its importance in the inoculation process. For example, does affect work better than cognition or vice versa? Does affect work better than cognition, but only in certain situations? Or does affect enhance cognition’s effectiveness? Although some research has been done in this area, thus far, no definitive answer has emerged.

Affect’s effectiveness. In their study exploring the effectiveness of cognitive and affective treatments and attacks, Lee and Pfau (1997) found that cognitive inoculation treatments were successful in conferring resistance to cognitive and positive attacks, but not negative attacks. In addition, affective treatments were successful against cognitive but not affective attacks. These findings suggest the best way to fight cognitive attacks is with affective treatments, and perhaps reasoning and rationality play a lesser part in the process of resistance to influence than was first thought. However, manipulations for the study were weak because subjects receiving affective treatments did not report experiencing more affect. The findings are interesting and lend support for Zajonc
(1980), who believes it is easier to argue with cognitions than affect and that once a
cognitive judgment has been made, one can still be persuaded otherwise through logic
and evidence. Zajonc’s thesis could explain Lee and Pfau’s findings that affective
treatments were successful against cognitive attacks but not affective attacks and both
negative-affective and positive-affective treatments conferred resistance to cognitive
attacks.

Perhaps Zajonc is correct - it is easier to argue with cognitions than affect; however, this does not explain Lee and Pfau’s (1997) finding that cognitive inoculation
treatments were successful in conferring resistance to cognitive and positive affect
attacks, but not negative affect attacks. One explanation might be that negative affect is
so powerful that it leads individuals to doubt their own judgments and thereby give in to
resistance, whereas positive affect serves to assure individuals that their attitudes are
correct and thus produces resistance to influence. Does the use of affect produce different
outcomes in the inoculation process? Clearly more research is needed.

Video as an affective medium. Television is an affective medium (Chesebro,
1984; Meyrowitz, 1985). Because of this, some researchers have looked at affect by
employing the use of video in the inoculation process (Godbold & Pfau, 2000; Pfau,
1997; Pfau et al. 2000; Pfau & Van Bockern, 1994). Exploring video in the inoculation
process is important because of our media-saturated society that features television news
stations in which “good video” drives the newsworthiness of a story. A house fire or car
chase, because of its dramatic pictures, often takes precedence over news coverage about
laws and legislation that impact considerably more people.
Nabi (2003) explored the impact of affect in resistance by using emotionally evocative visuals dealing with animal testing. Nabi used both video-based inoculation treatments and attack messages and found that visual treatment messages elicited emotional responses and conferred resistance but only with consistent affective visual components. Whenever there was inconsistency in the video inoculation treatments such as high affective countearguments followed by low affective refutations or vice-versa, treatments failed to confer resistance. Nabi’s findings agree with Millar and Millar (1990) who found that attitude change was strongest when cognitive and affective appeals were mismatched with cognitive and affective attacks and resistance to attitude change was strongest when cognitive and affective appeals were matched with affective and cognitive attacks.

Numerous researchers have described television as more emotionally arousing than print media (Cho, et al., 2003). Cho et al. (2003) state television makes viewers feel as if they are “on the scene” through images that utilize technological features such as sound, close-ups and slow motion (p. 312). News broadcasters’ presentation of news generates more and stronger emotions because of the tone and verbal expressions used by anchors and reporters; this in turn, elicits more emotion from the audience (Cho et al., 2003, pp. 312-313). Cho et al. believe this “is a crucial feature of television news that can elicit emotional responses” (p. 313).

Clearly, affect is playing a part in television news broadcasts, but the question is – what role does affect play via video news broadcasts when print inoculation messages are used? Is there a difference? Is one better than the other? As stated before, this is
extremely important in today’s media-saturated environment because it could lend insight into structuring inoculation messages. Is a potential crisis highly visual and therefore would receive intense and broad television coverage? If so, then which type of inoculation message would work best – cognitive or affective? People seem to trust what they see more than what they hear. Seeing is, indeed, believing according to Graber (1987), but will a more affective inoculation message result in less believing in the instance of a video news attack?

Therefore, due to the intriguing findings of Lee and Pfau (1997) in which affective treatments were successful against cognitive attacks but not affective attacks; previous conflicting findings on whether matched or mismatched appeals and attacks work best to confer resistance; and the notion that video is an affective medium and this is primarily how crises are covered by the media, the following research question is posed:

*RQ3:* Do cognitive inoculation treatments and affective inoculation treatments differ in their ability to confer resistance to a video attack?

**Message Processing**

The idea that cognitive and affective messages differ in the manner in which they change attitudes is an area of persuasion research that has yet to be fully explored. A number of researchers have proposed models and theories that detail two distinct paths of information processing (Chaiken, 1980; Epstein, 1983; Jung, 1964), including Petty and Cacioppo (1986) who introduced the elaboration likelihood model to explain how persuasive messages are processed. The ELM suggests a central route to persuasion,
which is followed when an individual is able and motivated to extensively process a persuasive message (Breckler & Wiggins, 1989). When an individual is unmotivated or unable to extensively process a persuasive message, he or she is less likely to pay attention to the facts contained in a persuasive message and more likely to attend to peripheral factors, such as the source of the message, experienced positive or negative affect, or message length (Breckler & Wiggins, 1989).

Previous research also has found that processing depends on the type of media consumed. For example, print is more likely to produce active message processing (Petty & Cacioppo, 1986), whereas video, an affective medium, is more likely to generate passive processing (Graber, 1987). Pfau (1990) reasoned the effectiveness of video and print inoculation treatments would vary because the two modes of transmission were persuasive in different ways; other researchers agree that content carries the persuasive load in print messages, but in visuals, much emphasis is placed on the source and source cues because television, by nature, is a more affective medium (Chesebro, 1984; Meyrowitz, 1985). Additional evidence for the dual processing of persuasive messages is offered by Pfau, et al. (2000, 2001), who looked at print and video inoculation treatments and found that print and video go about conferring resistance in different ways. In these studies, video, a more affective message source than print, relied on source cues, with much less reliance on specific message content to confer resistance. Pfau et al., (2001) also found that video inoculation treatments initially instill positive relational perceptions of the source of such treatments, which subsequently produce resistance to the source of persuasive attacks. The finding provides empirical support for the position advanced by
Meyrowitz (1985) that media forms vary in the manner in which they communicate. Print places predominate emphasis on the content of messages, while video relies more on source considerations such as the attractiveness, gender or credibility of a spokesperson.

But what happens when cognitive and affective print treatments are used with a video attack? Previous research indicates that because of its affective nature, video inoculation treatments lead subjects to rely more on source cues. Will the same be true when affective print treatments are met with a video attack message? Message processing models agree that affective messages are processed more peripherally (Chaiken, 1980; Petty and Cacioppo, 1986), and because television is considered an affective medium, it would stand to reason that video messages would be processed peripherally; therefore, if both the inoculation treatment message and the attack message are processed peripherally, this should lead to more reliance on source cues. Furthermore, according to Millar and Millar (1990), matched affective appeals and attacks should confer more resistance. Therefore, the following hypothesis is proposed:

\[ H4: \text{Although both cognitive inoculation treatments and affective inoculation treatments are effective in minimizing damage to an organization’s image in the event of a crisis, affective treatments produce resistance to influence by relying more heavily on source cues than cognitive treatments do.} \]

It stands to reason that when an individual is confronted with a cognitive message, which consists of logical arguments and facts, he or she will most likely process information centrally, but an individual confronted with an affective message, which relies less on facts and more on source factors and emotion, will most likely process the
message peripherally. However, this line of research is just beginning to attract attention from researchers. While early information processing research focused on types and effectiveness of message appeals, modern-day research has explored the processes by which these appeals lead to persuasion. Rosselli, Skelly, and Mackie (1995) looked at how affective and cognitive persuasion appeals produce attitude change via affective and cognitive responses to the messages. Findings revealed that persuasion in response to cognitive-based arguments was mediated by cognitive responses to the message, but persuasion in response to affective-based arguments was mediated by both cognitive and affective responses to the message. While testing the construct validity of cognitive-experiential self-theory, Epstein (1996) found support for the rational route to information processing, which relies on analysis and logic and the experiential route, which operates by context-specific, heuristic rules. Epstein found that messages designed to elicit more experiential processing showed more context specificity than logical messages.

_Cognitive-experiential self theory_. Epstein and Pacini (2001) first posited Cognitive-Experiential Self Theory, or CEST. The theory is comprised of three abstract conceptual systems that are unpredictably accessible to human conscious awareness. The conceptual systems include the rational conceptual system, the experiential conceptual system, and the associationistic conceptual system. The rational conceptual system is distinguished by conscious, logical thinking, or what some might refer to as cognition. The experiential conceptual system encodes imagined experience as real experience and involves the weaving of concrete experiences into emotional story-like generalizations or
models of one’s life situation or the world. Finally, the associationistic conceptual system reveals itself in altered states of consciousness such as states of delirium and dreams. It is possible for the three systems to overlap or coordinate. For example, the rational system can become aware of messages in the experiential or associationistic systems. This can lead to stress and conflict if the systems are not integrated.

Epstein (1989) argues that people often consciously identify themselves with their rational conceptual system because it is logical and it makes sense to them. At the same time, individuals are unaware of how their behavior is determined by their experiential conceptual system because it often operates automatically behind consciousness. Behavior “is far more often determined by what ‘feels’ right and is therefore determined by motives in the experiential conceptual system” (Epstein, 1989, p. 10). It appears that Epstein is making the case that affect, or emotion, is at the core of experiential processing. This leads to the following hypotheses:

- **H5:** Compared to cognitive inoculation treatments, affective inoculation treatments produce more experiential message processing.
- **H6:** Compared to affective inoculation treatments, cognitive inoculation treatments produce more rational message processing.

*Counterarguing*

The process of counterarguing, in which a person resists persuasion by engaging in silent dialogue with the source, is central to McGuire’s (1964) inoculation theory. Counterarguing, which has been studied by social scientists for decades, can be traced to early research on one- and two-sided messages (Miller & Baron, 1973). While
strong support exists for the role threat plays in the inoculation process, evidence supporting the role countarguing plays is less definitive because of controversial measurements and conflicting findings on the direct association between counterarguing and resistance.

Papageorgis and McGuire’s (1961) were the first researchers to operationalize counterarguing, but their effort has received criticism over the years. Instead of having participants list counterarguments and refutations, two primary components in a resistance context, the researchers had participants list reasons supporting their attitudes. The result was an operationalization of bolstering or supportive messages, not counterarguing.

*Measuring affect during counterarguing.* For years, researchers of inoculation theory have assumed that counterarguing, because of its cognitive nature, is a necessary component for the inoculation process. However, the idea that counterarguing might involve an affective component is just now being explored. Inoculation is now understood as a process that is both cognitive and affective. However, scientific attempts to measure both cognitive and affective output have proven imperfect.

In the past, the measurement of counterargument required only that participants list potential counterarguments to their beliefs and their refutations to those attacks. For much of the history of inoculation theory, the standard measurement has been thought-listing, which McGuire (1961a) borrowed from earlier studies of human cognition. The procedure of thought-listing asks participants to write arguments when faced with an attack message. Although the procedure remains the accepted way to measure
counterargument, scientists have applied other approaches. A recognition check-off procedure asks the participant to simply place a mark next to specific statements that the individual recognizes as the arguments he or she would make when faced with an attack to some specific belief (Pfau et al., 2004; 2005). Thus far, procedures of thought-listing and recognition check-off have limited the measurement of counterargument to cognitive output and ignored the equally inherent content of affect. With the thought-listing technique, subjects are asked to list everything they think during the counterarguing process. The number of statements are then counted and compared, but statements are not analyzed for cognitive or affective content. With the recognition check-off procedure, researchers included only cognitive statements. Because of this, any affect that may have occurred during the counterarguing process failed to be captured (Pfau et al., 2004, 2005).

Scientists have attempted to remedy the deficiency by applying scales to test attitude and affect. For example, Pfau (1990) employed eight 7-point bipolar adjective pairs to measure attitude and affective responses to comparative messages in advertising, but reported only “marginal success” with the measure, most likely because it was not used during the actual counterarguing process but to measures attitude states before and after the treatment manipulations. Lee and Pfau (1997) had minimal success measuring affect by asking participants to list feelings counter to their own and then rebutting them. The statements were coded according to positive and negative categories.
Miller and Baron (1973), among others, have suggested that researchers look at more passive processing, which would account for affect, in the counterarguing process. They proposed that counterarguing be assessed in the following way:

Often people seem adept at resisting influence in spite of the fact that they lack concrete reasons for doing so. Consequently, it might be important to assess the extent to which people employ outright evaluative rejection vs. reasoned rejection. (Miller & Baron, 1973, p. 114).

Subjects, once they encountered a message, would indicate whether they “reject outright” or “reject with reason” each counterargument. This method might provide insight into whether counterarguing is a more affective or cognitive process. For example, those subjects that indicate they “reject outright” would appear to be employing a more affective method of resistance, whereas subjects that “reject with reason” would appear to be employing a more cognitive method of resistance. One problem with this method is that subjects might be biased in selecting the “reject with reason” choice simply to justify their position even though they have no cognitive reason to explain the attitude they hold. However, one way to adjust for this bias would be requiring participants to list their reason for rejection.

Because past inoculation studies have assumed that counterarguments and the counterarguing process is only cognitive in nature, and because these studies have failed to distinguish between affective and cognitive counterarguments and, in fact, may have unknowingly lumped both cognitive and affective counterarguments together, researchers may have missed what is going on during the counterarguing process.
This study attempts to identify that both cognitive and affective counterarguments exist, and furthermore, the type of counterargument generated is based on the type of inoculation treatment, cognitive or affective, that participants are exposed to. Because participants in the cognitive inoculation condition were exposed to cognitive refutations, it stands to reason that cognitive inoculation treatments will elicit more cognitive counterarguments and affective inoculation treatments will generate more affective counterarguments. This leads to the following hypotheses:

- **H7**: Compared to affective inoculation treatments, cognitive inoculation treatments elicit more cognitive counterarguments.
- **H8**: Compared to cognitive inoculation treatments, affective inoculation treatments elicit more affective counterarguments.

Several inoculation studies have included measures that asked participants to rate the weight or strength of arguments and counterarguments on a scale of 1 (weak) to 7 (strong). These weights were then multiplied by the number of responses to generate counterarguing output (Pfau et al., 2004). Pfau and colleagues are currently working on an inoculation study where they are using thought listing in conjunction with subjects’ ratings of the strength of each counterargument (personal communication, March 6, 2007). This study will build on previous research of the counterarguing process, first, by characterizing counterarguments as either cognitive or affective in nature, and second, by comparing the strength of those rankings.

- **RQ4**: Do affective counterarguments and cognitive counterarguments differ in strength?
Chapter IV
Methodology

The purpose of this study was to explore several proactive, pre-emptive alternatives to traditional crisis management, including inoculation, bolstering and corporate social responsibility messages. The investigation also examined a possible downside to inoculation when a crisis does not occur and expanded on previous inoculation research by looking at the role of affect during the counterarguing process. The method for this study included a two-phase experiment conducted in a laboratory setting.

Experimental Component

Although Wan and Pfau (2004) used an actual company, the researchers used a fictitious news story about a hypothetical crisis. Because it is difficult to anticipate a crisis scenario, Wan and Pfau invented one. For this study, the researcher used an actual company, Diamond Pet Foods, which recently suffered a real-life crisis that was restricted to one region of the United States. In addition, the crisis did not affect the area where the study was conducted, and therefore, received minimal news coverage in the area. As a manipulation check, every subject was asked to list everything he or she knew about Diamond Pet Foods before beginning the study. Those who had any awareness of the company’s recent crisis (n=3) were not included in the study. It should be noted that data for this investigation was gathered in November 2006, several months before the wide-spread pet food recall that received intense, nationwide media coverage during spring 2007.
Diamond Pet Foods is a nationwide company that manufacturers several different lines of pet food for cats and dogs. The company’s products are sold at livestock feed stores and some veterinarians’ offices. The company’s products are not carried by grocery stores or retail chains such as Wal-Mart. This makes it unlikely that most people are familiar with the company and its brands. Therefore, a corporate full-color brochure, which was secured from Diamond Pet Foods, was used in Phase I to familiarize participants with the company.

For the attack phase that is used in traditional inoculation research, participants in this study were exposed to just over 30 minutes of video which included portions of the January 9, 2006 broadcast of the NBC Nightly News, followed by portions of the entertainment news program Extra. All participants saw the exact same video except participants in the non-crisis condition did not see the story detailing the Diamond Pet Foods crisis. Everything else was exactly the same. The news package for the Diamond Pet Food story ran approximately 2:40, therefore, the crisis condition which contained the Diamond Pet Food story ran 36:30, while the non-crisis condition, which contained everything the crisis condition did except the news package about the Diamond Pet Foods crisis ran 33:50. The crisis message functioned similarly to an “attack” in inoculation research. The crisis involved Diamond Pet Foods and its recent recall of products that killed several family pets throughout the northeastern United States. This particular crisis was selected because it received little attention in the area where the study was conducted; therefore, most participants should not have been pre-exposed to the crisis situation. The crisis also was chosen because it happened recently, so any broadcast news
story that participants were exposed to did not look out-dated. Using a real-life news story as the “attack” message agrees with Compton and Pfau’s (2005) suggestion that future research should focus on attitude attacks that are less explicit and direct than those used in most contemporary inoculation studies. Implicit influences on attitudes are powerful since people fail to resist influences they don’t recognize as persuasion (Mendelberg, 2001). Unlike advertisements or sales pitches, it is expected that participants would not see a television news broadcast as an attempt to persuade them. Previous research has shown the public views news coverage as more credible than advertisements, most likely because of the “third party endorsement” implied by news coverage.

Additionally, to eliminate any type of bias or prior knowledge of the pet food crisis, participants were asked to list everything they knew about Diamond Pet Foods during Phase I of the study. Those participants that indicated any knowledge about the crisis were eliminated from the study.

Participants

Subjects were composed of undergraduate students recruited from communication classes at a southwestern university and all were at least 18 years of age. A total of 287 students (193 females, and 94 females) completed the study, which was administered in two phases. The study saw a retention rate of 85% from Phase 1, when the initial questionnaires were completed, to Phase 2. All participants were randomly assigned to either an experimental or control condition.
Design and Independent Variables

The investigation employed multivariate analyses (MANCOVA) to assess predictions and questions. The primary independent variable, experimental condition, included seven categories: bolstering, CSR, affective same inoculation, affective different inoculation, cognitive same inoculation, cognitive different inoculation and control/no inoculation. The study featured a 5 x 2 design, following the collapse of affective same/different and cognitive same/different from four to two conditions. A second independent variable, scenario, included both crisis and non-crisis conditions. Participants’ gender, pet ownership, initial attitudes toward Diamond Pet Foods, and their level of involvement with safe and healthy pet food served as covariates.

Covariates

Gender. Gender was used as a covariate and operationalized as male and female.

Pet ownership. Pet ownership was operationalized by asking participants to check “yes” or “no” to the following question: “Do you own a pet?” Nearly 55% of participants reported owning a pet. Because the study involved a pet food manufacturer, it was important to control for the variable of pet ownership. However, the study did not ask participants, which were college students, if they were solely responsible for the care of that pet. Therefore, some participants may have reported owning a pet that resides with other family members during the school year.

Prior attitude. Subjects’ prior attitudes toward Diamond Pet Foods served as a covariate. Inoculation aims to maintain people’s positive attitude toward a target and prevent slippage when a persuasive attack is encountered, in this case, a crisis scenario.
This means that subjects must already have a positive attitude toward the target for inoculation to work. An established measure that features six bipolar adjectives including: wise/foolish, good/bad, positive/negative, favorable/unfavorable, right/wrong, and acceptable/unacceptable (Burgoon et al., 1978; Lee & Pfau, 1997; Miller & Burgoon, 1979; Pfau, 1992; Pfau & Burgoon, 1988; Pfau et al., 1990; Pfau et al., 1992; Pfau et al., 1997) was used. Attitude was measured using a 7-point scale, where 1 represents a negative attitude and 7 represents a positive attitude toward the target. Reliability for the measure was $\alpha = .90$. This measure was taken in order to balance across experimental conditions. Inoculation researchers typically assess both initial attitude and issue involvement in order to assign participants to conditions.

**Issue involvement.** Participants’ involvement with safe and healthy pet food was assessed using a six-item, 7-point bipolar adjective scale (Zaichkowski, 1985). The scale included: unimportant/important, of no concern/of much concern, means nothing/means a lot, doesn’t matter/matters to me, insignificant/significant, and irrelevant/relevant. Reliability for this measure was $\alpha = .95$. In addition to serving as a covariate, this variable also was used to evenly balance participants across experimental conditions.

**Experimental Condition**

**Inoculation messages.** Inoculation messages were written as either inoculation same or different. Following the same operationalization used by McGuire and other inoculation researchers over the years, all of the inoculation-same messages contained an explicit refutation of content raised in the corresponding attack message. All inoculation-different messages contained no rebuttal of the specific content in the corresponding
attack message and consisted only of generic content. In addition, same and different inoculation messages were also written as either cognitive or affective.

For this study, four inoculation messages (affective same/different and cognitive same/different) were written in response to the video attack. Each inoculation message contained a paragraph designed to elicit threat, which was operationalized as a warning of an impending and possibly influential attack against the participant’s position. Example text includes:

“In spite of Diamond Pet Foods’ efforts to avoid contamination of your pet’s food products, the media would not hesitate to make the company a target of criticism, should such contamination occur. The media are likely to criticize Diamond Pet Foods in spite of the company’s efforts to head-off such a crisis. Sometimes the media’s criticism can be so severe that it may distort your impression of Diamond Pet Foods and cause you to doubt the company and its products.”

The remainder of each inoculation message contained refutational preemption, which was operationalized as offering arguments contrary to a participant’s position and then refuting them. Only inoculation-same messages dealt with the specific content that was contained in the corresponding attack message.

Cognitive inoculation treatments were operationalized by using a printed message that featured logic and reasoning. The cognitive messages used statistics and verifiable evidence and avoided any opinion, anecdotes or affect-laden language. Affective inoculation treatments were operationalized by using a printed message that included emotion, anecdotes and “feel-good” language, rather than facts and figures. The affective
messages avoided using logic or reasoning and did not include reference to any statistics or verifiable evidence. All cognitive and affective messages were pre-tested and adjustments made prior to the study to ensure that affective messages were eliciting more affect than cognitive messages and vice versa (please refer to results on page 48-49). As a means for generating affect, the study employed the use of Lazarus’ (1991) appraisal theory, which is based on goal attainment and posits that when a person’s goal is facilitated, he or she will experience positive affect and when a person’s goal is impeded, he or she will experience negative affect. Affective treatments in this study suggested either the promotion or obstruction of goal attainment in order to elicit participants’ emotions. Example text includes:

“Sometimes the media’s criticism can be so severe that it may distort your impression of Diamond Pet Foods and cause you to doubt the company and its products. This is unfortunate, because instead of sensationalizing the news, the media should focus on giving news watchers like yourself information on keeping your pet safe, healthy and happy. When the media focus on sensational stories, it prevents important information from getting communicated to people like yourself.”

_Pilot test._ As stated previously, two types of inoculation messages were used for this study, one affective in nature and the other cognitive in nature. A pilot study was conducted to ensure the affective messages would elicit more affect. Twenty-three students were recruited to read through either an affective or cognitive message and fill out a short questionnaire that asked them how the message made them feel. The
participants’ indicated their feelings about how angry, annoyed or irritated they felt about the media, which was a subject of the message. Participants also indicated how they felt about Diamond Pet Foods, the company mentioned in the message, on the dimensions of dignity, honor and gratification. A 7-point scale was used to assess responses, where 0=none and 6=a lot. It was expected that those reading an affective message should score higher on the affective part of the scale, and those reading a cognitive message would produce more counterarguments. Results indicate the affective messages elicited more affect ($M = 3.6, S.D. = 1.2$) than cognitive messages ($M = 2.6, S.D. = 1.0$), ($t(21) = -2.10, p=.05$). Participants were also asked to engage in a thought-listing technique where they were asked to list any thoughts and feelings that went through their mind while they were reading the message. This was used to assess cognition. It was expected that those reading a cognitive message would produce more counterarguments than those reading an affective message. Results indicate that those participants reading a cognitive message produced more counterarguments ($M = 3.58, S.D. = 1.97$) than those reading an affective message ($M = 2.58, S.D. = 1.62$), ($t(22) = 1.36, p=.19$).

**Bolstering message.** The bolstering message was operationalized as one that featured positive information about the company and its products. The bolstering category featured a print message detailing Diamond Pet Foods’ commitment to excellence and stellar reputation in regards to the company’s products. Example text includes:

“Diamond Pet Foods researches and purchases only the highest quality ingredients direct from a single source. There are no middlemen, brokers or
bidding process. The company’s single-source buying insures Diamond Pet Foods’ products are consistent in taste, smell, and color, which is essential for pets since they are far more sensitive to dietary change than humans.”

CSR message. The CSR message was operationalized as one that featured information on Diamond Pet Foods’ good deeds, which included philanthropic efforts, contributions to the community and efforts to improve society. The message detailed the company’s efforts to rescue stray animals; its help in the training of rescue dogs and companion animals for the disabled; and its product donations to animal shelters nationwide. Example text includes:

“Diamond Pet Foods also sponsors animal adoption efforts by partnering with local animal shelters throughout the United States. In 2005, Diamond Pet Foods helped place more than 500,000 animals in new homes. The company also gives money to foundations and non-profit organizations that help animals. These organizations are involved in everything from rescuing wild horses to training animal companions for people with disabilities.”

Control message. The control/no inoculation message was a reprint from an Associated Press story about a town located on the Ohio-Indiana state line that is positioned in two time zones. The story discusses how residents must deal with the two time zones for most of the year. Only those participants in the control condition received this dummy message, which did not prime them in any way about animals or pet food. Example text includes:
“For more years than most of the 4,000 or so people who call College Corner home can remember, the town has been a rather schizophrenic place when it comes to the time of day. Because the community, like the local school, is split in half by the Ohio-Indiana line, residents must deal with two time zones for much of the year. While those on the Buckeye side of the state line are governed by Eastern Daylight Time, their Hoosier counterparts step to the beat of Eastern Standard Time.”

Message equivalence. Because language and the message used in inoculation can affect the outcome, the study employed messages that were consistent in writing style and readability. All messages contained between 484 and 488 words and were no more than one page in length.

Crisis/Non-crisis Scenario

The crisis/non-crisis condition was operationalized by exposing participants to a 15-minute broadcast from the NBC Nightly News that included a report detailing Diamond Pet Foods’ recall of pet food products following reports of pets dying after consuming the company’s pet food. The particular story involved a family whose pet had died and whose other pet was very sick and receiving treatment. The broadcast news story featured the owners calling their dog “our baby” and the reporter referring to the owners as “heartbroken.” The piece could easily be classified as affective in nature because of the emotional language used and the slice-of-life, or anecdote, approach taken by the reporter who chose to focus on a single family instead of looking at the larger problem caused by the crisis. All participants in the crisis, or attack, condition were exposed to the same 15-minute news broadcast immediately followed by a 15-minute
broadcast of *Extra*, a celebrity news TV program. Those in the non-crisis condition were exposed to the exact same broadcast but with the pet food story edited out of the video.

*Procedure*

The study occurred in two phases. Phase 1, which was administered in November 2006, collected participants’ demographic information. Participants also were asked about their knowledge of Diamond Pet Foods. This was done to filter out those participants that had any prior knowledge of the company’s recent crisis. Following this, subjects read a corporate brochure about the company involved in the study, Diamond Pet Foods. This was done to familiarize participants with the company. Because Diamond Pet Foods is a pet food manufacturer, it was expected that most participants would have no knowledge of Diamond Pet Foods or its brands of pet foods, which are sold mostly in feed stores and veterinarians’ offices. Therefore, if participants had no knowledge of Diamond Pet Foods, it would be difficult for them to hold any type of attitude toward the company. Next, participants’ attitudes toward the company and involvement level with safe and healthy pet food were assessed, and based on an analysis, subjects were assigned to an experimental condition. Assignment of subjects to conditions was random yet balanced in regards to attitude and involvement. Next, participants (except for those in the control group) were subjected to one of the following: control message, bolstering message, CSR message, affective inoculation message or cognitive inoculation message. Subjects in the control group received a dummy message about Daylight Savings Time. Additionally, since threat is an important component of inoculation, threat was measured
during this phase to find out if subjects felt a threat toward their attitudes. Finally, counterarguing and subjects’ processing of messages were assessed.

Phase 2 involved the crisis condition, which is equivalent to the “attack” condition in inoculation studies. Phase 2 was conducted between four and 30 days following Phase 1 and occurred during November and December of 2006. Previous research has indicated that a delay of two to seven days enhances the inoculation effect in resisting attack (McGuire, 1962). During Phase 2, subjects in the crisis condition were exposed to a video that included an *NBC Nightly News* report detailing Diamond Pet Foods’ product recall and the deaths of several animals that consumed the bad pet food. Subjects in the non-crisis condition were exposed to a video that included everything the crisis video showed except the *NBC Nightly News* report about Diamond Pet Foods’ product recall. Following exposure to the crisis or non-crisis condition, subjects rated their post-crisis attitudes toward Diamond Pet Foods, their perceptions of the company’s corporate reputation, the credibility of Diamond Pet Foods’ spokesperson, Mark Brinkmann, and their purchase intentions.

**Dependent Variables**

*Threat.* Threat was measured on a 7-point scale, where 1 indicates low threat and 7 indicates high threat. A commonly used scale by inoculation researchers was used and featured five bi-polar adjective pairs: not risky/risky, safe/dangerous, not harmful/harmful, intimidating/intimidating and non-threatening/threatening. Reliabilities for these scales in the past have proved consistently high (Pfaus et al., 1990; Pfau, 1992; Lee & Pfau, 1997). Reliability for the measure was $\alpha = .92$. 

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Counterarguing. Because previous research has indicated that affect may be playing a role during inoculation (Lee & Pfau, 1997; Nabi, 2003; Pfau et al., 2000; Pfau et al., 2001) and since previous attempts at capturing affect during the counterarguing process have produced minimal results (Lee & Pfau, 1997; Pfau, 1990), this study employed a modified version of the recognition check-off measure, which has been used in previous studies (Pfau, Compton, et al., 2004; Pfau, Ivanov, et al., 2005). The check-off procedure more accurately reflects the counterarguing process as it occurs during resistance (Benoit, 1991). It also offers more spontaneity and less effort on the part of the participant (Pfau et al., 2004; Eagly & Chaiken, 1993). Participants were asked to identify counterarguments, or arguments as to why the opposing arguments were wrong. Counterarguments were coded by the researcher as either affective or cognitive in nature. Cognitive counterarguments featured logic, reasoning and verifiable evidence, while affective counterarguments featured emotion-laden statements such as “I like Diamond Pet Foods” or “The media sucks.” All affective and cognitive counterarguments contained in the recognition check-off list were based on the researchers’ intuition, arguments contained within the messages, and a pre-test (n = 77) in which subjects were asked to list all their thoughts and feelings about Diamond Pet Foods. The measure included a total of 40 counterarguments (26 cognitive counterarguments and 14 affective counterarguments) reflecting major arguments for participants’ positions regarding Diamond Pet Foods. The number of counterarguments participants identified were coded as either cognitive or affective, then totaled and averaged to calculate their counterarguing output. Results were analyzed and appropriate responses included in the
recognition check-off list. Reliability for the affective counterarguments was $\alpha = .77 \ (n = 287)$, while reliability for the cognitive counterarguments reached $\alpha = .86 \ (n = 287)$.

Participants also were asked to rate the strength of each of the counterarguments they checked on a scale of 1 (weak) to 7 (strong). These ratings were totaled and then averaged to calculate the strength of participants’ counterarguments.

*Corporate reputation.* Corporate reputation was measured using the Reputation Quotient (Fombrun, Gardberg, & Sever, 2000). The instrument features a 20-item, 7-point Likert-type scale where 1 = strongly disagree and 7 = strongly agree. The instrument measures a company’s reputation from a multi-stakeholder perspective and features six dimensions: emotional appeal, products and services, vision and leadership, workplace environment, social and environmental responsibility, and financial performance. Since its development, the RQ has been widely used in business and industry and to a lesser extent by academics to measure corporate reputations (“The Bits and Bytes,” 2001; Groenland, 2002; Walsh & Wiedmann, 2004).

The following items measured emotional appeal: “I have a good feeling about Diamond Pet Foods.” “I admire and respect Diamond Pet Foods.” “I trust Diamond Pet Foods.” Reliability was $\alpha = .92 \ (n = 287)$.

The company’s products and services were measured using the following items: “Diamond Pet Foods stands behind its products and services.” “Diamond Pet Foods develops innovative products and services.” “Diamond Pet Foods offers high quality products and services.” “Diamond Pet Foods offers products and services that are a good value for the money.” Reliability was $\alpha = .90 \ (n = 287)$. 

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The following items measured the company’s vision and leadership: “Diamond Pet Foods has excellent leadership.” “Diamond Pet Foods has a clear vision for its future.” “Diamond Pet Foods recognizes and takes advantage of market opportunities.” Reliability was \( \alpha = .87 \) (\( n = 287 \)).

The company’s work environment was assessed using the following items:

“Diamond Pet Foods is well-managed.” “Diamond Pet Foods looks like a good company to work for.” “Diamond Pet Foods looks like a company that would have good employees.” Reliability was \( \alpha = .91 \) (\( n = 287 \)).

The following items assessed the company’s social responsibility activities:

“Diamond Pet Foods supports good causes.” “Diamond Pet Foods is an environmentally responsible company.” “Diamond Pet Foods maintains high standards in the way it treats people.” Reliability was \( \alpha = .88 \) (\( n = 287 \)).

The company’s financial performance was measured using the following items:

“Diamond Pet Foods has a strong record of profitability.” “Diamond Pet Foods looks like a low risk investment.” “Diamond Pet Foods tends to outperform its competitors.” “Diamond Pet Foods looks like a company with strong prospects for future growth.” Reliability was \( \alpha = .88 \) (\( n = 287 \)).

**Attitude.** Participants’ attitudes toward Diamond Pet Foods were assessed as stated previously by using an established measure that features six bipolar adjectives including: wise/foolish, good/bad, positive/negative, favorable/unfavorable, right/wrong, and acceptable/unacceptable (Lee & Pfau, 1997; Pfau, 1992; Pfau et al., 1997; Pfau et al., 1992; Pfau et al., 1990; Pfau & Burgoon, 1988; Burgoon et al., 1978; and Miller &
Burgoon, 1979). The items were scored using a 7-point scale. Reliability for the post-attitude measure was \( \alpha = .97 \) (\( n = 287 \)).

**Credibility.** A measure developed by McCroskey (1966) was used to assess the credibility of the corporation’s spokesperson, who was featured in all but the control component of the experimental condition and the non-crisis video condition. McCroskey’s scale focuses on the credibility of people, including speakers, teachers and peers. The scale has been used in numerous studies to confirm that high credibility speakers are in fact perceived as credible (Rubin, et al., 1994).

The two dimensions of the credibility measure used for this study include authoritativeness and character. Both dimensions were scored using a 7-point scale, and participants were instructed that the numbers “1” and “7” indicate a very strong feeling and the number “4” indicates a feeling of neutral or undecided. The dimension of authoritativeness features six bi-polar adjectives: unreliable/reliable, uninformed/informed, unqualified/qualified, unintelligent/intelligent, worthless/valuable, and inexpert/expert. Reliability for the measure was \( \alpha = .90 \) (\( n = 287 \)). The dimension of character also features six bi-polar adjectives: dishonest/honest, unfriendly/friendly, unpleasant/pleasant, selfish/unsselfish, awful/nice, sinful/virtuous. Reliability for the measure was \( \alpha = .93 \) (\( n = 287 \)).

**Purchase intention.** Participants’ intentions to purchase products was operationalized using the Purchase Intention (PI) scale developed by Yi (1990). Participants were asked “How likely is it that you would consider purchasing products from Diamond Pet Foods?” Three 7-point bipolar scales were used and anchored by very
unlikely/very likely, improbable/probable, and impossible/possible. Impossible/possible was thrown out and the two items of very unlikely/very likely and improbable/probable were used. These items reached a reliability of $\alpha = .94$ ($n = 287$).

**Processing.** There were 18 task specific scale items used to make participants reflect on the process of reading the experimental condition message. Items on the scale were included on two different dimensions, rational and experiential (Novak & Hoffman, 2005). Participants were asked to respond to the 18-item scale and responses were scored from 1=definitely false to 5=definitely true. Items for both dimensions were consistently coded prior to analyses.

The rational processing items included: “I reasoned things out carefully.” “I approached and assessed the message analytically.” “I assessed and judged the message systematically.” “I was very focused on the steps involved in judging the message.” “I used clear rules.” “I was very aware of my thinking process.” “I was very focused on what I was doing to arrive at my judgment.” “I arrived at my assessments by carefully assessing the information in front of me.” The rational processing items reached an $\alpha = .81$ ($n = 287$).

The experiential processing items included: “I used my instincts.” “I used my heart as a guide for my reactions.” “I went by what felt good to me.” “I relied on my sense of intuition.” “I trusted my hunches.” “I used my gut feelings.” “I used free-association, where one idea leads to the next.” “I had flashes of insight.” “I relied on my first impressions.” “Ideas just popped into my head.” Experiential items reached an $\alpha = .77$ ($n = 287$).
Chapter V

Results

The purpose of this study was to explore the impact of proactive messages in both crisis and non-crisis situations. The study also explored a possible downside of inoculation when a crisis does not occur and the role of affect in the counterarguing process by employing an alternative method for measuring the construct. Hypotheses 1-8 and Research Questions 1-4 are examined below.

Statistical Analysis

Two data analysis strategies were employed. Predictions in the study were assessed using a 5 x 2 Multivariate Analysis of Covariance (MANCOVA). The 5 x 2 MANCOVA assessed the impact of experimental condition (affective inoculation, cognitive inoculation, bolstering, CSR and control) and scenario (crisis and non-crisis) on all dependent variables. Covariates included gender, pet ownership, prior attitude and issue involvement. All significant omnibus experimental condition results were followed by univariate tests. For outcomes that were significant, planned comparisons were calculated using Dunn’s multiple comparison procedure (Bonferroni Test) to assess predicted mean differences (Kirk, 1995), and Scheffe’s post-hoc tests were used to probe other differences. Refer to Table 1 for results.

Omnibus Multivariate Results

Results for the covariates were analyzed and found to be non-significant. Neither gender, $p=.31$, pet ownership, $p=.20$, pre-attitude, $p=.11$, or involvement, $p=.27$, were significant and therefore exerted no impact on the dependent variables.
The 5 x 2 MANCOVA revealed a main effect for experimental condition Wilks’ $F(56,469) = 2.48, p<.01$, $\eta^2 = .22$, with univariate tests indicating significant effects on the dependent measures of elicited threat, $F(4,133) = 5.69, p<.01$, $\eta^2 = .02$, purchase intention, $F(4,133) = 3.105, p<.01$, $\eta^2 = .03$, and cognitive counterarguing, $F(4,133) = 11.28, p<.01$, $\eta^2 = .10$. Following the omnibus test, Dunn’s planned comparisons were calculated to further examine the means and assess hypotheses. Huberty and Morris (1989) justify this procedure of testing multiple means when omnibus results are not significant but theory posits otherwise.

Manipulation Check

Compared to controls, inoculation treatments should produce enhanced levels of threat. Cognitive and affective inoculation treatments were combined to assess threat. A planned comparison revealed that compared to controls, participants in the combined inoculation conditions experienced greater threat levels, $F(1,133) = 4.75, p<.01$, $\eta^2 = .01$. Thus, inoculation messages operated as planned by generating significantly more threat among participants in the inoculation condition than those in the control condition.

Hypothesis 1

Hypothesis 1(a) predicted that compared to controls, bolstering approaches are more effective in minimizing the damage to an organization's image that follows a crisis. To examine this prediction, a planned comparison test was computed to compare bolstering and control groups on the dependent variables of corporate reputation, credibility, post-attitude and purchase intention. Results for Hypothesis 1(a) were mixed. There were significant differences supporting this prediction on all six dimensions of
corporate reputation, including: emotional appeal, \(F(1,133) = 3.96, p<.01, \eta^2 = .01\);
products and services, \(F(1,133) = 4.59, p<.01, \eta^2 = .00\); vision and leadership, \(F(1,133) = 3.94, p<.01, \eta^2 = .00\); work environment, \(F(1,133) = 3.05, p<.01, \eta^2 = .00\); social
responsibility, \(F(1,133) = 3.18, p<.01, \eta^2 = .00\); and financial performance, \(F(1,133) = 3.48, p<.01, \eta^2 = .00\). Those subjects exposed to a bolstering message rated the
corporation higher on all dimensions of corporate reputation than those subjects exposed
to a control message. Results for the credibility dimension were mixed. There were
significant differences on the dimension of authoritativenss, \(F(1,133) = 2.69, p<.05, \eta^2 = .00\), but surprisingly, subjects exposed to a bolstering message rated the company
spokesperson as less authoritative than those exposed to a control message. In fact,
although not significant, subjects in all experimental conditions rated the company
spokesperson higher in authoritativeness than those in the bolstering condition. There was
no significant difference on the character dimension, \(F(1,133) = .32, p=.49\). The study
also failed to find significant differences involving post-attitude, \(F(1,133) = .29, p=.66\)
and purchase intention, \(F(1,133) = 1.09, p=.02\). Therefore, Hypothesis 1(a) was partially
supported. Compared to control messages, bolstering messages do a good job of
protecting a corporation’s reputation following a crisis. However, bolstering messages
failed to exert a significant influence on any other variable except the authoritativeness
dimension of credibility, which is in the opposite direction of what was hypothesized.

Hypothesis 1(b) predicted that compared to controls, inoculation approaches are
effective in minimizing the damage to an organization’s image that follows a crisis. To
examine this prediction, a planned comparison test was computed to compare inoculation
and control groups on the dependent variables of corporate reputation, credibility, post-
attitude and purchase intention. Results for Hypothesis 1(b) also were mixed. There were
significant differences on four of the six dimensions of corporate reputation including:
emotional appeal, $F(1,133) = 4.54, p<.01$, $\eta^2 = .01$; products and services, $F(1,133) =
7.12, p<.01$, $\eta^2 = .01$; vision and leadership, $F(1,133) = 2.87, p<.05$, $\eta^2 = .00$; and
financial performance, $F(1,133) = 3.11, p<.01$, $\eta^2 = .00$. Participants exposed to an
inoculation message rated the company higher on the four dimensions of corporate
reputation than those participants exposed to a control message. There were no
significant differences in the corporate reputation dimensions of work environment,
$F(1,133) = .33, p=.43$; or social responsibility, $F(1,133) = 1.22, p=.59$. There also were
no significant differences on the credibility dimensions of authoritativeness, $F(1,133) =
0.41, p=.57$, or character, $F(1,133) = .05, p=.49$, or on the dependent measures of post-
attitude, $F(1,133) = 1.80, p=.66$ or purchase intention, $F(1,133) = 0.40, p=.02$. Therefore,
Hypothesis 1(b) was only partially supported. Compared to control messages, inoculation
messages do a good job of protecting a corporation’s reputation following a crisis;
however, there is no evidence in this study that inoculation significantly impacts
spokesperson credibility, post-attitude or purchase intention.

Hypothesis 2

Hypothesis 2 posited that compared to bolstering, inoculation messages are
superior in minimizing the damage to an organization’s image that follows a crisis. A
planned comparison test was computed to compare bolstering and inoculation groups on
the dependent variables of corporate reputation, credibility, post-attitude and purchase
intention. Significant differences were detected among only one of the six dimensions of corporate reputation: work environment, \( F(1,133) = 2.95, p < .05, \eta^2 = .00 \). Subjects exposed to a bolstering message rated the company higher on the dimension of work environment than those subjects exposed to an inoculation message. There were no significant differences found among the dimensions of emotional appeal, \( F(1,133) = 0.12, p = .40 \); products and services, \( F(1,133) = 0.01, p = .29 \); vision and leadership, \( F(1,133) = 0.37, p = .46 \); social responsibility, \( F(1,133) = 1.02, p = .59 \); and financial performance, \( F(1,133) = 0.09, p = .34 \). Additionally, there were no significant differences among the credibility dimensions of authoritativeness, \( F(1,133) = 1.52, p = .57 \); and character, \( F(1,133) = 0.30, p = .49 \), or among the dependent variables of post-attitude, \( F(1,133) = 0.50, p = .66 \), and purchase intention, \( F(1,133) = 0.41, p = .02 \). Thus, there was virtually no support for this prediction. Inoculation messages were not superior to bolstering messages, and in fact, bolstering, at least in this study, was superior to inoculation but only on the dimension of work environment.

**Hypothesis 3**

Hypothesis 3 predicted that compared to controls, the promotion of a company’s corporate social responsibility activities is effective in minimizing the damage to an organization’s image that follows a crisis. A planned comparison test was computed to compare corporate social responsibility and control groups on the dependent variables of corporate reputation, credibility, post-attitude and purchase intention. Results for Hypothesis 3 were mixed. Significant differences were found among three of the six corporate reputation dimensions including: emotional appeal, \( F(1,133) = 2.18, p < .05, \eta^2 \)
and financial performance, $F(1,133) = 5.22, p < .01$, $\eta^2 = .01$. Participants exposed to a CSR message rated the company higher on the three dimensions than those participants exposed to a control message. No significant differences were reported on the corporate reputation dimensions of vision and leadership, $F(1,133) = 0.77, p = .46$, work environment, $F(1,133) = 0.50, p = .43$, or social responsibility, $F(1,133) = 0.77, p = .59$. There were no significant differences between CSR and control groups in the credibility dimensions of authoritateness, $F(1,133) = 0.22, p = .60$ or character, $F(1,133) = 0.13, p = .49$. Results for post-attitude were non-significant, $F(1,133) = 1.70, p = .66$, but significant differences were found on the dependent variable of purchase intention, $F(1,133) = 10.18, p < .01$, $\eta^2 = .02$. Subjects exposed to the CSR message indicated more willingness to purchase the company’s products than those exposed to a control message. Therefore, Hypothesis 3 was partially supported: In this study, CSR messages exerted some effects in limiting damage to an organization’s reputation following a crisis and were particularly effective in protecting participants’ intention to purchase the company’s products. This is particularly surprising because the featured crisis involved an actual product and not an industrial accident or corporate scandal.

Research Question 1

Research Question 1 examined the effectiveness of bolstering compared to corporate social responsibility campaigns in minimizing the damage to an organization’s image that follows a crisis. To examine this question, an independent sample t-test was conducted. The findings indicated that participants exposed to a message about a
company’s corporate social responsibility activities, $M=2.45$, $SD=1.76$, are not more likely to purchase the company’s products following a crisis than those participants exposed to a bolstering message, $M=1.75$, $SD=1.0$; however, results did approach significance, $(t(54) = -1.82, p = .075)$. No significant differences were found on the dependent variables of corporate reputation, credibility or post-attitude. Therefore, in this study, there was no difference in the effectiveness of corporate social responsibility messages and bolstering messages in minimizing the damage to an organization following a crisis.

Research Question 2

Research Question 2 explored whether inoculation messages undermine an organization’s image absent a crisis. To examine this question, an independent sample $t$-test was conducted comparing participants in the inoculation and control conditions for the non-crisis scenario only. Results indicated that overall, there is very little impact when inoculating subjects absent a crisis. Significant differences were found for only two dimensions of the corporate reputation variable: products and services, $(t(87) = 2.02, p < .05)$, and financial performance, $(t(87) = 2.15, p < .05)$. However, the differences indicate that participants exposed to inoculation messages absent a crisis perceive the company significantly more positively than participants exposed to a control or dummy message, at least on the dimensions of products and services, $M=4.68$, $SD=.94$; $M=4.30$, $SD=.66$, and financial performance, $M=4.40$, $SD=.80$; $M=3.98$, $SD=1.0$. In fact, although not statistically significant, results indicate that on all dimensions of the corporate reputation scale, as well as the measures of post-attitude and purchase intention, participants
exposed to an inoculation message consistently rated the company more positively than participants exposed to a dummy or control message. Therefore, inoculation messages do not negatively impact a company’s reputation absent a crisis and appear to only help the company in the areas of corporate reputation, spokesperson credibility, post-attitude, and purchase intention.

Research Question 3

Research Question 3 looked at differences in the ability of cognitive and affective print-based inoculation treatments in conferring resistance to a video attack. An independent sample t-test was conducted to answer Question 3. No significant differences were found on any of the dependent variables including the corporate reputation dimensions of emotional appeal, ($t(57) = 0.60, p = .55$); products and services, ($t(57) = 0.25, p = .8$); vision and leadership, ($t(57) = -0.72, p = .48$); work environment, ($t(57) = -0.84, p = .40$); social responsibility, ($t(57) = -0.22, p = .83$); and financial performance, ($t(57) = -0.75, p = .46$). In addition, there were no significant differences on the variables of post-attitude, ($t(57) = 0.63, p = .53$), or purchase intention, ($t(57) = -1.43, p = .16$).

Therefore, findings indicate that cognitive and affective print-based inoculations are equally effective in conferring resistance to a video attack.

Hypothesis 4

Hypothesis 4 predicted that although both cognitive inoculation treatments and affective inoculation treatments are effective in minimizing damage to an organization’s image in the event of a crisis, affective treatments will produce resistance to influence by relying more heavily on source cues than cognitive treatments do. Because results from
Hypothesis 1(b) indicated there were no significant differences in the credibility dimensions of authoritiveness, $F(1,133) = 0.41$, $p=.57$, or character, $F(1,133) = 0.05$, $p=.49$ for inoculated participants versus those in the control condition, there can be no support for Hypothesis 4. Without evidence that inoculation impacts spokesperson credibility, it is impossible to determine whether affective inoculation treatments relied more heavily on source cues than cognitive inoculation treatments. Therefore, Hypothesis 4 was not supported.

**Hypotheses 5 and 6**

Hypotheses 5 and 6 addressed the processing of cognitive and affective inoculation messages. It was posited that compared to cognitive inoculation treatments, affective inoculation treatments will produce more experiential message processing, and compared to affective inoculation treatments, cognitive inoculation treatments will produce more rational message processing. A planned comparison was calculated to assess both hypotheses. Results indicated no support for Hypotheses 5 and 6. Participants exposed to a cognitive message did not report significantly more rational processing than those participants exposed to an affective message; likewise, those participants exposed to an affective message did not report more experiential processing than those exposed to a cognitive message, $F(1,133) = 0.43$, $p=.80$. Therefore, there is no evidence that cognitive and affective inoculation messages are processed differently.

**Hypothesis 7**

Hypothesis 7 predicted that cognitive inoculation treatments will elicit more cognitive counterarguments than affective inoculation treatments. A planned comparison
was computed and results indicated that compared to participants exposed to an affective inoculation message, those exposed to a cognitive inoculation message produced significantly more cognitive counterarguments, $F(1,133) = 6.49, p<.01, \eta^2=.01$. Therefore, Hypothesis 7 is supported. In this study, cognitive inoculation messages generated significantly more cognitive counterarguments than affective inoculation messages.

**Hypothesis 8**

Hypothesis 8 posited that compared to cognitive inoculation treatments, affective inoculation treatments will elicit more affective counterarguments. A planned comparison was calculated to assess Hypothesis 8. Results indicated that compared to participants exposed to a cognitive inoculation message, those exposed to an affective inoculation message produced significantly more affective counterarguments, $F(1,133) = 4.45, p<.01, \eta^2=.03$. Therefore, Hypothesis 8 is supported. In this investigation, affective inoculation messages elicited significantly more affective counterarguments than cognitive messages.

**Research Question 4**

Research Question 4 looked at whether affective and cognitive counterarguments differ in strength. A paired samples t-test was computed. Results indicated that participants selecting affective counterarguments ranked those counterarguments, $M=2.63, SD=1.26$, as significantly stronger than participants selecting cognitive counterarguments, $M=1.42, SD=.97$, ($t(236) = 12.97, p<.01$). Thus, participants
in this study felt significantly stronger about affective counterarguments than they did about cognitive counterarguments.
Chapter VI

Discussion

The purpose of this study was to explore pre-emptive alternatives to traditional crisis management, including inoculation, bolstering and corporate social responsibility messages. The investigation also examined a possible downside to inoculation when a crisis does not occur and expanded on previous inoculation research by exploring the role of affect during the counterarguing process.

Inoculation and Bolstering as Alternative Approach to Crisis Communications

Previous studies have found both bolstering and inoculation to be effective when attitudes are challenged (McGuire, 1961a; McGuire & Papageorgis, 1962; Pfau & Burgoon, 1988; Pfau et al., 1997; Wan & Pfau, 2004), and results from this study reveal much the same. Both bolstering and inoculation worked fairly well, thus the pre-emption arsenal is expanded. Compared to the control condition, bolstering was effective in minimizing damage to a company’s corporate reputation, but it had mixed results on source credibility, even negatively impacting participants’ view of spokesperson authoritativeness. In fact, participants in the bolstering condition rated the spokesperson’s authoritativeness lower than subjects in any other condition, including the control or inoculation conditions. Perhaps this finding was simply an anomaly, or perhaps exposure to the company’s brochure in Phase I of the study functioned as a booster session or pre-bolstering mechanism and actually had a boomer-rang effect that could best be explained by psychological reactance. Bolstering had no impact on participants’ attitudes toward the company or purchase intentions. Results also revealed that compared to the control
condition, inoculation was effective in minimizing damage to a company’s corporate reputation on four of six dimensions but had no impact on source credibility, participants’ attitudes toward the company or purchase intentions. Therefore, both inoculation and bolstering approaches are equally effective in protecting corporate reputation following a crisis.

Finally, although previous researchers have found support for the idea that inoculation is more effective than bolstering when participants’ attitudes are challenged (Anderson & McGuire, 1965; Crane, 1962; McGuire, 1961a; McGuire & Papageorgis, 1961, 1962; Tannenbaum & Norris, 1965; Tannenbaum et al., 1966) this study found virtually no support for this hypothesis. This is not surprising since this investigation also revealed that compared to the control condition, bolstering was effective on more dependent variables than inoculation. The results agree with Wan and Pfau (2004) who found that inoculation and bolstering messages worked equally well in protecting against negative attitudes following a crisis.

One explanation for this study’s finding could be that participants were exposed to a corporate brochure before answering the pre-attitude and involvement measures during Phase I and this might have operated as a double-shot of bolstering. As mentioned previously, a manipulation check revealed that significantly more threat was generated among inoculated subjects than those in the control condition; therefore, a lack of threat cannot explain these mixed findings. Another explanation may be that inoculation functions differently in crisis situations than in traditional inoculation studies that deal with controversial issues such as legalization of marijuana and gun control.
This is the first investigation to use an actual broadcast news story, detailing a real-life corporate crisis, in the attack condition of an inoculation study. Wan and Pfau (2004) used a print story in their attack condition. As mentioned previously, the broadcast news story used an anecdote by profiling a family whose dog had died because of contaminated pet food. The news story was filled with emotion and affect-laden language. In addition, it was visual – something that can’t be transferred when reading a story on paper, and it had the third-party endorsement because it was broadcast on the NBC Nightly News. In spite of this powerful and visual attack, all three pre-emptive strategies - inoculation, bolstering and exposure to a CSR message - were effective in protecting against corporate reputation, and in the case of CSR, against purchase intention. As suggested by Compton and Pfau (2005) this study employed the use of an implicit attack in the form of a news story. As Mendelberg (2001) stated, implicit influences on attitudes are powerful because people may not recognize them as persuasion. Unlike advertisements, written persuasive messages, speeches, and sales pitches, television news coverage, or any news coverage for that matter, is not viewed by most people as an attempt to persuade them. However, in spite of the implicit attack used in this study, all pre-emptive strategies were effective in conferring resistance to influence following a crisis. Future research should focus on the use of news coverage as an attack mechanism in the traditional inoculation process.

CSR as a Crisis Communications Strategy

This study also explored the impact of exposing participants to a corporate social responsibility message prior to a crisis situation. Although previous research has looked
at the impact of bolstering prior to a crisis (Wan & Pfau, 2004), this study also looked at a particular type of bolstering in the form of corporate social responsibility messages. Results for the impact of CSR were mixed. Compared to controls, CSR exerted more resistance to influence on three of the six corporate reputation dimensions. Because this study measured corporate reputation using a multiple stakeholder scale, this finding supports Sen, Bhattacharya, and Korschun (2006) who also found that CSR has multiple stakeholder benefits.

CSR had no impact on the source credibility measure or post-attitude in this study, however, it did have a significant impact on purchase intention. Subjects exposed to a CSR message indicated significantly more intent to purchase a company’s products than those exposed to a control message. Furthermore, when a comparison between bolstering and CSR was measured, subjects exposed to a CSR message were not more likely to purchase a company’s products post-crisis than those exposed to a bolstering message; however, the test did approach significance. The findings lend support for Margolis and Walsh (2003) who, after reviewing 127 CSR studies, found an upside to the promotion of a company’s CSR activities and with Sen, Bhattacharya, and Korschun (2006), who looked at the impact of CSR from a multiple stakeholder perspective and found that CSR can impact consumers’ purchase intentions. Therefore, CSR appears to be a particularly effective type of bolstering message.

It is interesting that corporate social responsibility messages worked so well in conferring resistance to influence on the dimension of purchase intention, particularly when the attack condition consisted of a broadcast news story detailing a crisis that
involved the company’s product – dog food. These findings support proponents of
corporate social responsibility such as Ray Kroc and others who believed that a
corporation’s good works are best used during times of trouble and should not be viewed
as a way to immediately impact sales (“Trust Bank Speech,” 1994). The finding also
supports the idea of resilience proposed by Bhattacharya and Sen (2004). Consumers
reward companies involved in CSR activities by being resilient and overlooking negative
information about the company.

Clearly, results from this investigation need further replication and study.
Indications are that CSR helps protect attitudes from slippage following a crisis situation,
particularly when the crisis involves the company’s product. But would the same be true
if the crisis involved a financial scandal, mistreatment of employees or industrial
accident? Future studies should compare different types of crises and CSR’s potential
impact on corporate reputation, attitudes and purchase intentions.

**Inoculation’s Impact Absent a Crisis**

As mentioned earlier, the Wan and Pfau (2004) indicated there could be a possible
downside to inoculating the public when a crisis does not occur. Therefore, one of the
goals of this study was to look at whether inoculation messages undermine an
organization’s image absent a crisis.

This study found no negative impact when participants are inoculated and a crisis
does not occur. Significant differences between inoculation and control subjects were
found, but those differences indicated a positive impact when inoculation is used.
Significant differences were found on two of the six corporate reputation dimensions, but
these differences indicated that subjects in the inoculation conditions thought more highly of the company on the dimensions of products and services and financial performance. In addition, there appears to be only an upside to inoculating the public absent a crisis. Although not statistically significant, participants in the inoculation condition consistently rated the company higher on all dependent variables including corporate reputation, post-attitude and purchase intention. These findings are contradictory to Wan and Pfau (2004) who found that bolstering was slightly superior to inoculation absent a crisis. This study, however, suggests that companies should be actively inoculating the public in order to protect from possible attitude slippage and that there is no downside to inoculation even when a crisis does not occur. This is important because it is nearly impossible to anticipate or predict when a crisis might occur. Therefore, some companies might be hesitant to inoculate the public by bringing up negative information. However, as this investigation shows, inoculation messages do not undermine a company’s image absent a crisis, and may even enhance it. Perhaps people like or trust companies that are honest with them about their potential vulnerabilities and what they are doing to correct them.

As mentioned previously, this study found only an upside when subjects were inoculated absent a crisis, but future research should explore whether the same thing occurs in a traditional inoculation study. Do subjects in the inoculation condition view the target of the attitude more positively than those in the control condition even when their attitudes are not challenged or attacked? Future research should focus on the impact of inoculating the general public versus stakeholders absent a crisis. It may make more
sense to inoculate members of the organization’s stakeholders, such as employees, customers, and stockholders. These are people with a vested interest in the organization and the people that the organization communicates with on a regular basis through interpersonal communication, annual reports, newsletters, and e-mail messages. Therefore, it would be easier to inoculate stakeholders, then attempt to inoculate the general public through paid advertising or direct mail pieces.

**Nuances in Inoculation**

In addition to exploring preemptive strategies for crisis management, this study also was interested in examining some of the internal workings of inoculation theory. Of particular interest to the researcher was the impact of affect in the process of resistance to influence. First, the study explored the effectiveness of cognitive inoculation treatments compared to affective inoculation treatments in conferring resistance to a video attack. Because video news coverage is visual and mostly affective in nature, the researcher thought it was important to explore potential differences in cognitive and affective messages when a video attack, in the form of a broadcast news story, is used. Results indicated there was no statistical significance between cognitive inoculation messages and affective inoculation messages when conferring resistance to a video attack. In this study, both messages worked equally well. This implies that either type of inoculation message should work similarly in conferring resistance to a video attack. This finding is not surprising given that previous researchers have found that both cognitive and affective inoculation treatments work equally well in conferring resistance to subsequent attacks (Lee & Pfau, 1997; Pfau et al., 2001).
This study also theorized that affective inoculation treatments would rely more heavily on source cues when conferring resistance to influence. Previous scholars have noted that receivers place more emphasis on the source and source cues when receiving communication through video (Chesebro, 1984; Meyrowitz, 1985). In spite of this, there was no support for the hypothesis that affective inoculation treatments would rely more heavily on source cues when conferring resistance to influence than cognitive treatments do, perhaps because both types of inoculation treatments were in print form. If the affective inoculation treatment had utilized a more affective modality, such as video, the hypothesis might have been supported and would have lent support to Millar and Millar (1990) who found that matched affective appeals and attacks should confer more resistance to influence. Another explanation for why Hypothesis 4 was not supported could be due to the spokesperson for Diamond Pet Foods, who went on camera during the broadcast news story and showed a great amount of sympathy and concern about the crisis and those customers who had lost pets. Perhaps the spokesperson’s transparency and sincerity trumped any differences that might have been discovered between those subjects exposed to a cognitive inoculation message and those exposed to an affective inoculation message.

Results from the CEST processing measure (Epstein & Pacini, 2001) showed no support for the hypothesis that subjects exposed to an affective inoculation message would process the message more experientially while subjects exposed to a cognitive inoculation messages would process the message more rationally. Scholars have long championed the notion of two distinct routes of processing (Chaiken, 1980; Epstein,
1983; Jung, 1964; Petty & Cacioppo, 1986), however this study found no evidence of it.

Although disappointing, the results could be due to a social desirability bias in which participants want to present themselves in a manner that will be viewed favorably by others. This might be especially true of college undergraduates, who were the participants in this study. Perhaps college students, who are told regularly about the importance of thinking and logic, did not feel comfortable agreeing strongly with statements on the processing measure such as “Ideas just popped into my head,” “I trusted my hunches” and “I went by what felt good to me.” Future research should employ an alternative, perhaps more implicit, method of assessing the processing of affective and cognitive inoculation messages.

Although previous inoculation studies have used both affective and cognitive inoculation treatments in their research, they have failed to measure affect, with the exception of Pfau (1990), who had minimal success using a bi-polar adjective scale and Lee and Pfau (1997) who had little success measuring affect by asking participants to list feelings counter to their own and then refuting them. This study used a recognition check-off which has been used in previous inoculation research (Pfau et al., 2004; 2005), however, for this study, the check-off contained both cognitive and affective counterarguments. Previous studies using the check-off measure contained only cognitive counterarguments. It was hypothesized that participants exposed to an affective inoculation message would produce more affective counterarguments, such as “I like Diamond Pet Foods” and “Diamond Pet Foods is a good company,” and participants exposed to a cognitive inoculation message would recognize more cognitive
counterarguments. Results support the hypotheses. Those subjects exposed to affective counterarguments produced significantly more affective counterarguments, while those subjects exposed to the cognitive inoculation message produced more cognitive counterarguments. These findings support the idea that inoculation can produce both affective and cognitive counterarguments, something Crane (1962) first proposed more than 50 years ago. This is important because past research has focused strictly on cognitive counterarguments. Future research should further examine the role and impact of affective counterarguments in the counterarguing process.

Additionally, the study also explored the strength of both affective and cognitive counterarguments. Several inoculation studies have included measures that asked participants to rate the weight or strength of arguments and counterarguments on a scale of 1 (weak) to 7 (strong). These weights were then multiplied by the number of responses to generate counterarguing output (Pfau et al., 2004). This study, however, compared the strength of counterarguments, specifically affective and cognitive counterarguments, and found that participants scored affective counterarguments as significantly stronger than cognitive counterarguments. Although this discovery may seem perplexing on the surface, Zajonc (1980) would not find it surprising. The finding validates Zajonc’s notion that people trust their feelings and are never wrong about what they like or dislike. Zajonc also states that cognition, unlike, affect is easier to argue with because people can accept they are factually wrong about something, but it is more difficult to convince them they are wrong about what they feel.
Finally, the fact that subjects rated affective counterarguments significantly stronger than cognitive counterarguments is perplexing because of other non-significant findings in this same study. If participants in the affective inoculation treatment condition feel significantly stronger about their counterarguments than those in the cognitive inoculation condition, one would expect to find affective treatments more effective than cognitive ones in conferring resistance, but this is not what the study found. As stated previously, perhaps inoculation was ineffective because of the implicit nature of the video attack. Therefore, future studies should expand on these findings by exploring the strength of affective and cognitive counterarguments in a traditional inoculation study that utilizes an explicit attack on attitudes.

Limitations

There were several limitations to the study. First concerns the sample. The participants were undergraduate students, which were used to ensure a higher retention rate for the two-part study. An advantage to using this sample was that a majority reported they owned a pet, nearly 55%. This is an advantage because most participants should have been interested and engaged in the topic and it concerned something that was relevant to them. However, as mentioned earlier, subjects were not asked if they were responsible for the care of that pet. It is likely that some participants may have indicated they owned a pet when that pet actually resides with other family members. Of course, this study should be replicated in the future using a non-student sample.

Second, the sample also contained a high percentage of female participants at just over 67%. This is probably due to the high number of females enrolled in communication
classes, which was the source of participants for this study. This may have impacted the study. Previous meta-analyses concluded that women are more easily persuaded than men (Cooper, 1979; Eagly & Carli, 1981), but in spite of this, gender as a covariate in this study was non-significant. Still, future studies should focus on recruiting an equal percentage of both male and female participants.

Third, because the company involved in the crisis was a manufacturer of pet food, very few subjects were familiar with it. Therefore, the researcher had to create participants’ initial attitudes by exposing them to a company brochure. The corporate brochure was of high quality paper, full-color and featured positive statements about the company, its history and its products. This could have influenced the study, possibly functioning as a pre-bolstering or “booster” condition, which some researchers have found to enhance resistance (McGuire, 1961b; Tannenbaum, Macaulay & Norris, 1966). Much of the information contained in the corporate brochure also was included in the bolstering condition message. Therefore, it is possible that subjects in the bolstering condition received a “booster” message of sorts that made it as effective as inoculation. Additionally, all subjects were exposed to the brochure during the same phase as the treatment message. As stated previously, past research has found inoculation superior to bolstering in protecting attitudes (Anderson & McGuire, 1965; Crane, 1962; McGuire, 1961a; McGuire & Papageorgis, 1961, 1962; Tannenbaum & Norris, 1965; Tannenbaum et al., 1966), however this study did not. Perhaps the explanation lies in the use of the corporate brochure. However, every experimental condition was still more effective than the control condition at inducing resistance to influence.
Finally, it should be noted that many of the study’s significant findings had low variance accounted for, ranging from zero to three percent. Although disappointing, the results must be viewed in the context of applied research. Eagly and Chaiken (1993) state that in applied areas, even small effects sizes that account for relatively small proportions of variance can still be meaningful, and are often regarded as extremely important. Additionally, generating counter-attitudinal persuasion effects is challenging because in order to generate an inoculation effect, researchers must have a counter-attitudinal effect, some of which is deflected by the inoculation treatments.

Because this study involved only one company that experienced a crisis, results should be interpreted with caution. Future research studies should attempt to use several well-known nation-wide companies that have experienced a crisis that is isolated to a particular state or region of the country. That way, most participants would have knowledge of the company but little information about the crisis.

Despite the limitations, the experiment worked well. Retention is always a concern with an inoculation study, but this study accomplished a satisfactory attrition rate. Students had to return a week later to complete the study, so the high retention rate between phases was satisfactory.

Conclusion

The purpose of this study was to explore the impact of preemptive communication strategies, such as bolstering and inoculation, on crisis management. While previous research has employed primarily atheoretical approaches that focus on strategies to be used after a crisis occurs, this study looked at communication strategies that can be used
prior to a crisis. The study found mixed support for the impact of inoculation, bolstering and corporate social responsibility messages on corporate reputation and credibility of spokesperson. There was no support for attitude, and only participants in the CSR condition reported greater intention to purchase the company’s products following a crisis, even when the crisis involved the company’s product. This indicates that CSR may have a significant impact on consumers following a crisis.

One of the most significant findings is that in this investigation inoculation does not undermine an organization absent a crisis. The study found no downside to inoculation when a crisis does not occur. In fact, participants exposed to an inoculation message responded more positively on all dependent variables including corporate reputation, attitude and purchase intention. This study proves there is a definite upside to inoculating your public even when a crisis does not occur.

The study also explored the role of affect in the counterarguing process by employing an alternative method for measuring the construct. As expected, cognitive inoculation treatments produced more cognitive counterarguments while affective inoculation treatments produced more affective counterarguments. Surprisingly, the study also found that participants rated affective counterarguments significantly stronger than cognitive counterarguments.

This study contributed to the literature by exploring an alternative method to measuring affect during the counterarguing process by utilizing affective counterarguments in combination with cognitive counterarguments. Results prove that affective counterarguing does occur, especially among subjects exposed to affective
inoculation messages. In addition, the study also measured the strength of affective and cognitive counterarguments. This investigation also took on Compton and Pfau (2005) by utilizing an implicit attack as part of the inoculation experiment. Results indicate that bolstering and inoculation could be more susceptible to an implicit attack. Finally, the study expanded on Wan and Pfau (2004) by examining the impact of inoculation messages absent a crisis. Results prove that inoculation does not undermine an organization absent a crisis. In fact, inoculation appears to create more positive attitudes toward the company and improves the organization’s image.
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APPENDIX A

TABLE 1
### Table 1
**Mean Differences Between Message Types**

<table>
<thead>
<tr>
<th>Dependent Measure</th>
<th>Experimental Condition</th>
<th>Bolstering</th>
<th>CSR</th>
<th>Affective Inoc</th>
<th>Cognitive Inoc</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion</td>
<td>M (SD)</td>
<td>2.57 (.58)</td>
<td>2.40 (.32)</td>
<td>2.60 (.20)</td>
<td>2.40 (.31)</td>
<td>1.89 (.80)</td>
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<td>n</td>
<td>28</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Products</td>
<td>M (SD)</td>
<td>3.16 (.36)</td>
<td>3.08 (.27)</td>
<td>3.23 (.02)</td>
<td>3.16 (.24)</td>
<td>2.48 (.60)</td>
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<td>Vision/Lead</td>
<td>M (SD)</td>
<td>3.62 (.30)</td>
<td>3.24 (.29)</td>
<td>3.31 (.29)</td>
<td>3.56 (.34)</td>
<td>2.94 (.12)</td>
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<td>WorkEnv</td>
<td>M (SD)</td>
<td>3.48 (.42)</td>
<td>3.10 (.37)</td>
<td>2.82 (.26)</td>
<td>3.12 (.51)</td>
<td>2.84 (.19)</td>
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<td>SocResp</td>
<td>M (SD)</td>
<td>3.63 (.34)</td>
<td>3.31 (.29)</td>
<td>3.29 (.39)</td>
<td>3.37 (.43)</td>
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<td>Financial</td>
<td>M (SD)</td>
<td>2.86 (.17)</td>
<td>3.02 (.19)</td>
<td>2.67 (.06)</td>
<td>2.90 (.27)</td>
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<td>Threat</td>
<td>M (SD)</td>
<td>2.55 (.10)</td>
<td>2.24 (.20)</td>
<td>3.42 (.15)</td>
<td>3.47 (.35)</td>
<td>2.84 (.60)</td>
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<td>Post Attitude</td>
<td>M (SD)</td>
<td>2.71 (.27)</td>
<td>2.98 (.52)</td>
<td>3.02 (.23)</td>
<td>2.82 (.22)</td>
<td>2.52 (.28)</td>
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<tr>
<td>Purchase Intention</td>
<td>M (SD)</td>
<td>1.75 (.00)</td>
<td>2.45 (.16)</td>
<td>1.40 (.04)</td>
<td>1.75 (.00)</td>
<td>1.41 (.19)</td>
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<tr>
<td>Affective CAs</td>
<td>M (SD)</td>
<td>7.25 (3.22)</td>
<td>8.36 (3.27)</td>
<td>8.00 (2.55)</td>
<td>6.33 (3.58)</td>
<td>7.44 (2.90)</td>
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<tr>
<td>Cognitive CAs</td>
<td>M (SD)</td>
<td>4.93 (5.18)</td>
<td>4.18 (5.49)</td>
<td>8.10 (3.61)</td>
<td>11.30 (4.53)</td>
<td>4.52 (4.81)</td>
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**Note:** All corporate reputation, attitude and purchase intention items were measured using 7-point scales. Higher scores indicate more positive feelings about the corporation, more positive attitudes toward the company and greater intentions to purchase the company’s products. Lower scores indicate greater resistance to the crisis scenario. Threat also was assessed using a 7-point scale, with higher scores indicating greater levels of threat. Finally, cognitive and affective counterarguing were assessed by summing the number of each type of counterargument. Higher numbers indicate greater levels of that particular type of counterargument.

\(^a\)Significant compared to control at \(p < .01\).

\(^b\)Significant compared to control at \(p < .05\).
APPENDIX B

PHASE I SURVEY INSTRUMENTS
A researcher in the College of Mass Communications at Texas Tech University is interested in how people process messages. The researcher appreciates your willingness to participate in this study and asks that you read each set of instructions carefully and respond to each of the survey items as accurately as possible.

Questions in Part 1 are designed to provide necessary information about you. ALL OF YOUR RESPONSES IN THIS STUDY WILL BE TREATED CONFIDENTIALLY. But, we need some information so we can match up the questionnaires you complete during each of the sessions. PLEASE PRINT LEGIBLY.

NAME (please print): ___________________________________________ (last name) (first name)

INSTRUCTOR NAME: ______________________ COURSE #: ______________________

Please circle one: (1) Male (2) Female

Age on last birthday: ______

Year in school (Please circle one): (1) Freshman (2) Sophomore (3) Junior (4) Senior

(5) Graduate Student

Do you own a pet? (Please circle one): YES NO

Please list everything you know about Diamond Pet Foods:
The next items concern your attitude toward Diamond Pet Foods, a pet food manufacturer. Items consist of pairs of adjective opposites. Each of the pairs of adjective opposites is separated by the numbers 1, 2, 3, 4, 5, 6, and 7. Read each of the adjective pairs, and then circle a number that best describes your attitude toward pet food manufacturers.

**Attitude Toward Diamond Pet Foods**

1. Negative 1 2 3 4 5 6 7 Positive
   [Where 1 is the most negative and 7 the most positive.]
2. Bad 1 2 3 4 5 6 7 Good
3. Unacceptable 1 2 3 4 5 6 7 Acceptable
4. Foolish 1 2 3 4 5 6 7 Wise
5. Wrong 1 2 3 4 5 6 7 Right
6. Unfavorable 1 2 3 4 5 6 7 Favorable

The next items are designed to MEASURE YOUR SENSE OF THE OVERALL IMPORTANCE OF HEALTHY PET FOOD. How important is healthy pet food to you? Please circle a number for each adjective pair.

7. Unimportant 1 2 3 4 5 6 7 Important
8. Of no concern 1 2 3 4 5 6 7 Of much concern
9. Irrelevant 1 2 3 4 5 6 7 Relevant
10. Means nothing 1 2 3 4 5 6 7 Means a lot
11. Doesn’t matter 1 2 3 4 5 6 7 Matters
12. Insignificant 1 2 3 4 5 6 7 Significant

ONCE YOU HAVE COMPLETED ANSWERING PART I ABOVE, PLEASE READ THE MESSAGE ON THE NEXT PAGE AND ANSWER THE QUESTIONS THAT FOLLOW.
The next section is designed to help us understand how you feel about the idea that DESPITE YOUR OPINION ABOUT Diamond Pet Foods, THERE IS THE POSSIBILITY YOU MAY COME IN TO CONTACT WITH ARGUMENTS CONTRARY TO YOUR POSITION THAT ARE SO PERSUASIVE THAT THEY MAY CAUSE YOU TO RETHINK YOUR POSITION. I find THIS POSSIBILITY to be:

1. Un-intimidating 1 2 3 4 5 6 7 Intimidating
2. Non-threatening 1 2 3 4 5 6 7 Threatening
3. Not risky 1 2 3 4 5 6 7 Risky
4. Not harmful 1 2 3 4 5 6 7 Harmful
5. Safe 1 2 3 4 5 6 7 Dangerous

Items on the next page concern the thoughts that went through your mind as you read the message on the previous page. Please read the instructions carefully and then complete the items on the next page.
We are interested in how you went about the task of evaluating the message you just read. Please circle the appropriate response for each item below to indicate how true or false the statement is concerning how you assessed and judged the message as you were reading it.

1. I reasoned things out carefully.
   definitely false   mostly false   neutral   mostly true   definitely true

2. I used my instincts.
   definitely false   mostly false   neutral   mostly true   definitely true

3. I approached and assessed the video analytically.
   definitely false   mostly false   neutral   mostly true   definitely true

4. I used my heart as a guide for my reactions.
   definitely false   mostly false   neutral   mostly true   definitely true

5. I assessed and judged the message systematically.
   definitely false   mostly false   neutral   mostly true   definitely true

6. I went by what felt good to me.
   definitely false   mostly false   neutral   mostly true   definitely true

7. I was very focused on the steps involved in judging the message.
   definitely false   mostly false   neutral   mostly true   definitely true

8. I relied on my sense of intuition.
   definitely false   mostly false   neutral   mostly true   definitely true

9. I trusted my hunches.
   definitely false   mostly false   neutral   mostly true   definitely true

10. I used clear rules.
    definitely false   mostly false   neutral   mostly true   definitely true
11. I was very aware of my thinking process.
   | definitely false | mostly false | neutral | mostly true | definitely true |

12. I used my gut feelings.
   | definitely false | mostly false | neutral | mostly true | definitely true |

13. I was very focused on what I was doing to arrive at my judgment.
   | definitely false | mostly false | neutral | mostly true | definitely true |

14. I used free-association, where one idea leads to the next.
   | definitely false | mostly false | neutral | mostly true | definitely true |

15. I had flashes of insight.
   | definitely false | mostly false | neutral | mostly true | definitely true |

16. I relied on my first impressions.
   | definitely false | mostly false | neutral | mostly true | definitely true |

17. Ideas just popped into my head.
   | definitely false | mostly false | neutral | mostly true | definitely true |

18. I arrived at my assessments by carefully assessing the information in front of me.
   | definitely false | mostly false | neutral | mostly true | definitely true |

Items on the next page ALSO concern the thoughts that went through your mind as you read the previous message. Please read the instructions carefully and then complete the items on the next page.
We are interested in what thoughts went through your mind as you completed the attitude measures. THERE ARE TWO STEPS TO THIS PROCEDURE.

STEP 1. We’d like to know the REASONS that you thought of as to WHY THE OPPOSING ARGUMENTS ARE WRONG. Under the column on the left labeled Step 1, INDICATE WHETHER EACH ARGUMENT DID OR DID NOT ENTER YOUR MIND AS YOU READ THE PREVIOUS MESSAGE. Then proceed to Step 2.

STEP 2. Finally, we would like for you to GO BACK TO EACH AND EVERY ARGUMENT THAT YOU THOUGHT OF (those that you checked “Did” in Step 1) and rate it from 1 (weak) to 7 (strong) in terms of how good you think it is. WRITE YOUR NUMERICAL RATING IN THE SPACES PROVIDED TO THE RIGHT (under Step 2).

Please list any other thoughts or feelings that went through your mind as to why arguments that oppose your attitude are wrong.

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
APPENDIX C

PHASE II SURVEY INSTRUMENTS
PHASE II QUESTIONNAIRE

The researcher appreciates your continued participation in this study of how people process messages. Please read instructions at the start of each section of this booklet, do what is asked, and complete the survey items in each section as accurately as possible.

Questions in Part 1 are designed to provide necessary information about you. ALL OF YOUR RESPONSES IN THIS STUDY WILL BE TREATED CONFIDENTIALLY. But, we need some information so we can match up the questionnaires you complete during each of the sessions. PLEASE PRINT LEGIBLY.

NAME (please print): __________________________ _____________________________
(last name) (first name)

INSTRUCTOR NAME: ______________________ COURSE #: ______________________

Please circle one:           (1) Male                  (2) Female

Age on last birthday: ______

Year in school (Please circle one): (1) Freshman   (2) Sophomore  (3) Junior    (4) Senior
(5) Graduate Student

__________________________________________
On the scales below, please indicate your feelings about Mark Brinkmann, Diamond Pet Food’s chief operating officer and company spokesperson. Circle the number between the adjectives that best represents your feeling about Mr. Brinkmann. Numbers “1” and “7” indicate a very strong feelings. Number “4” indicates you are undecided or do not understand the adjectives themselves. There are no right or wrong answers.

### Authoritativeness

1. Reliable 1 2 3 4 5 6 7 Unreliable
2. Informed 1 2 3 4 5 6 7 Uninformed
3. Qualified 1 2 3 4 5 6 7 Unqualified
4. Intelligent 1 2 3 4 5 6 7 Unintelligent
5. Valuable 1 2 3 4 5 6 7 Worthless
6. Expert 1 2 3 4 5 6 7 Inexpert

### Character

7. Honest 1 2 3 4 5 6 7 Dishonest
8. Friendly 1 2 3 4 5 6 7 Unfriendly
9. Pleasant 1 2 3 4 5 6 7 Unpleasant
10. Unselfish 1 2 3 4 5 6 7 Selfish
11. Nice 1 2 3 4 5 6 7 Awful
12. Virtuous 1 2 3 4 5 6 7 Sinful

The next items concern your attitude toward Diamond Pet Foods. Items consist of pairs of adjective opposites. Each of the pairs of adjective opposites is separated by the numbers 1, 2, 3, 4, 5, 6, and 7. Reach each of the adjective pairs, and then circle a number that best describes your attitude toward Diamond Pet Foods.

### Attitude Toward Diamond Pet Foods

13. Negative 1 2 3 4 5 6 7 Positive
[Where 1 is the most negative and 7 the most positive.]
14. Bad 1 2 3 4 5 6 7 Good
15. Unacceptable 1 2 3 4 5 6 7 Acceptable
16. Foolish 1 2 3 4 5 6 7 Wise
17. Wrong 1 2 3 4 5 6 7 Right
18. Unfavorable 1 2 3 4 5 6 7 Favorable

--------------------------------------
The next items are designed to determine how likely you are to purchase products from Diamond Pet Foods. The items consist of pairs of adjective opposites separated by the numbers 1, 2, 3, 4, 5, 6, and 7. Read each of the adjective opposite pairs, and then circle a number that best describes your response to the following question:

How likely is it that you would consider purchasing products from Diamond Pet Foods?

19. Very Likely  1  2  3  4  5  6  7  Very Unlikely
20. Probable    1  2  3  4  5  6  7  Improbable
21. Possible    1  2  3  4  5  6  7  Impossible

PLEASE GO TO THE NEXT PAGE TO FINISH THE SURVEY.
Here are statements about Diamond Pet Foods. For each statement, please circle the number that best expresses your level of agreement with the statement. A 7 means you strongly agree with the statement, a 1 means you strongly disagree with the statement.

Please circle a number, 7=strongly agree, 1=strongly disagree

I have a good feeling about Diamond Pet Foods.
1 2 3 4 5 6 7SA

I admire and respect Diamond Pet Foods.
1 2 3 4 5 6 7SA

I trust Diamond Pet Foods.
1 2 3 4 5 6 7SA

Diamond Pet Foods stands behind its products and services.
1 2 3 4 5 6 7SA

Diamond Pet Foods develops innovative products and services.
1 2 3 4 5 6 7SA

Diamond Pet Foods offers high quality products and services.
1 2 3 4 5 6 7SA

Diamond Pet Foods offers products and services that are a good value for the money.
1 2 3 4 5 6 7SA

Diamond Pet Foods has excellent leadership.
1 2 3 4 5 6 7SA

Diamond Pet Foods has a clear vision for its future.
1 2 3 4 5 6 7SA

Diamond Pet Foods recognizes and takes advantage of market opportunities.
1 2 3 4 5 6 7SA

Diamond Pet Foods is well-managed.
1 2 3 4 5 6 7SA

Diamond Pet Foods looks like a good company to work for.
1 2 3 4 5 6 7SA

Diamond Pet Foods looks like a company that would have good employees.
1 2 3 4 5 6 7SA

Diamond Pet Foods supports good causes.
1 2 3 4 5 6 7SA
Diamond Pet Foods is an environmentally responsible company.

Diamond Pet Foods maintains high standards in the way it treats people.

Diamond Pet Foods has a strong record of profitability.

Diamond Pet Foods looks like a low risk investment.

Diamond Pet Foods tends to outperform its competitors.

Diamond Pet Foods looks like a company with strong prospects for future growth.

WHEN YOU COMPLETE THIS PAGE, PLEASE RETURN THE SURVEY BOOKLET TO THE RESEARCHER. THANKS FOR YOUR PARTICIPATION IN THIS STUDY!!
Diamond Pet Foods, a privately held, family-owned enterprise, was founded in 1970 as a livestock feed company. Today, Diamond Pet Foods is one of the nation's leading manufacturers of super-premium dog and cat foods and is the choice of top breeders, kennel owners, and sporting enthusiasts. Because of this, some pet food companies have tried to imitate the company's formulas, without success. Diamond Pet Foods is still the only "Super Premium," high quality pet food line without the "Super Premium" price.

Diamond Pet Foods is proud to offer consumers and their pets many healthy formulas, one to meet the needs of every dog and cat. Diamond Pet Foods' owners are committed to producing the best pet food products possible. "Diamond's success is due to producing pet foods that meet demanding professional breeders and nutrition-conscious pet owners standards at costs far below other super-premium pet foods," says Mark Brinkmann, Diamond Pet Foods chief operating officer. "Our business philosophy is simple: buy the finest quality ingredients, process them with the most advanced system possible, and sell the finished product at very competitive prices."

Diamond Pet Foods' high quality ingredients mean pets digest more… resulting in better overall health and less waste. Diamond Pet Foods works with dedicated suppliers and has fixed formulas, ensuring pets receive the same great taste and nutrition in every bag of food.

Diamond Pet Foods researches and purchases only the highest quality ingredients direct from a single source. There are no middlemen, brokers or bidding process. The company’s single-source buying insures Diamond Pet Foods’ products are consistent in taste, smell, and color, which is essential for pets since they are far more sensitive to dietary change than humans.

Diamond Pet Foods' researchers are constantly developing and implementing new market strategies, products, and manufacturing processes. These innovative ideas help the company maintain its edge as a market leader in the pet food industry. Diamond Pet Foods was the first pet food manufacturer to successfully market a super-premium product through a mass merchant and to market products containing naturally preserved chicken fats and meals. Diamond Pet Foods was also the first pet food manufacturer to incorporate Omega-3/Omega-6 fatty acid technology in all its canine products. In addition, research has shown that pets favor Diamond Pet Food products over Iams and Science Diet products.

Since 1986 Diamond Pet Foods has grown considerably -- exceeding the pet food industry average by a wide margin. The company’s size allows it the ability to adapt to market changes and the quick and efficient manufacturing of super-premium pet foods.

Diamond Pet Foods offers both efficiency and value. The company’s Meta, Missouri plant, a highly automated and efficient production facility, maintains one of the highest "Tons Produced/Man Hour" ratios in the industry. Recently expanded to 230,000 tons per year capacity, Diamond Pet Foods continues its tradition of growth and expansion while maintaining cost effective production techniques.
Diamond Pet Foods, a privately held, family-owned enterprise, was founded in 1970 as a livestock feed company. Today, Diamond Pet Foods is one of the nation's leading manufacturers of super-premium dog and cat foods and is the choice of top breeders, kennel owners, and sporting enthusiasts.

In addition to offering premium products without the premium price, Diamond Pet Foods is also committed to giving back to its community. Part of the company’s mission is to improve society for both animals and the people that care for them. For example, each year, Diamond Pet Foods donates more than 20 million pounds of cat and dog food to animal shelters across the nation.

Diamond Pet Foods also sponsors animal adoption efforts by partnering with local animal shelters throughout the United States. In 2005, Diamond Pet Foods helped place more than 500,000 animals in new homes. The company also gives money to foundations and non-profit organizations that help animals. These organizations are involved in everything from rescuing wild horses to training animal companions for people with disabilities. “We are dedicated to man’s best friend,” said Diamond Pet Foods’ Chief Operating Officer Mark Brinkmann. But the company’s commitment doesn’t end with just animals. Each year, the company provides full academic scholarships to 300 veterinarian students. “We want to reward those people who have chosen to dedicate their lives to helping animals,” said Brinkmann.

Diamond Pet Foods employees also are dedicated to improving society. Nearly every employee is a pet owner and all employees boast a love for animals. A number of Diamond Pet Foods employees volunteer at their local animal shelters or humane societies. Others are involved in programs that take cats and dogs to visit nursing home residents, and still others take pets to visit seriously ill patients at local hospitals.

One of Diamond Pet Foods most notable contributions occurred following Hurricane Katrina in 2005. Television footage showed thousands of stranded cats and dogs. Diamond Pet Foods, along with the National Society for the Prevention of Cruelty to Animals, donated money and manpower to help rescue animals from the devastation of Hurricane Katrina. Although a number of animals perished, thousands were saved because of the efforts of Diamond Pet Foods, SPCA and hundreds of volunteers. Diamond Pet Foods also developed a Web site with photos of rescued animals in hopes of reuniting them with their rightful owners. To date, more than 300 pets have been reunited with their owners.

Diamond Pet Foods also works to raise awareness about the consequences of animal cruelty. The company has developed and released a number of public service announcements that encourage citizens to report the mistreatment of animals to local authorities.

Diamond Pet Foods is proud to offer consumers and their pets quality products, but the company is even more proud of its efforts to improve society. “We want to make the world a better place to live for all creatures,” said Brinkmann.
Diamond Pet Foods is one of the nation's leading manufacturers of super-premium pet foods and is the choice of top breeders, kennel owners, sporting enthusiasts and pet owners like yourself. But as any reasonable pet owner knows, along with the manufacturing process comes the potential for contamination of pet food products. For example, a deadly fungus, called aflatoxin, can occur in corn, which is a main ingredient in pet food. Aflatoxin develops on crops during years with high temperatures and drought. If ingested by pets, aflatoxin can lead to liver damage and even death.

Diamond Pet Foods takes the threat of aflatoxin contamination seriously and has taken steps to prevent such contamination from occurring. However, in spite of Diamond Pet Foods’ efforts to avoid contamination of its products, the media would not hesitate to make the company a target of criticism. The media are likely to criticize Diamond Pet Foods in spite of its efforts to head-off any type of potential crisis, such as aflatoxin contamination. The media’s criticism could be so severe that it may distort your impression of Diamond Pet Foods and cause you to doubt Diamond Pet Foods and its products.

It would seem logical for a government agency to test corn going into manufacturing plants for processing, but it does not. Instead, officials rely on manufacturers to follow practices considered good within the industry. “We have stringent testing procedures to examine loads of corn we receive at our manufacturing plants,” says Mark Brinkmann, Diamond Pet Foods chief operating officer. “The company’s policy is to collect a sample from each incoming truck or rail car and use a ‘cup test,’ which can determine whether aflatoxin is present at levels above 20 parts per billion.” The Food and Drug Administration considers pet food to be contaminated if aflatoxin is found at levels greater than 20 parts per billion.

In past years, the Diamond Pet Foods’ manufacturing plants were rejecting one to two tainted loads per year. Last September, the Diamond Pet Foods began rejecting one to two loads of corn each week because testing revealed high levels of aflatoxin. The increased frequency led the company to adopt a new testing method that provides not just a yes-or-no result for aflatoxin’s presence, but also measures its concentration.

However, even with stringent testing protocols, aflatoxin can exist in pockets and be missed, according to industry experts. The fungus does not grow throughout the crop, so it may exist in some parts of the truckload and not others. Contaminated corn can occasionally slip through the system because the toxin has been known to accumulate in “hot-spots,” in a batch, thereby evading detection through random sampling.

Despite the fact that no government agency oversees the testing for aflatoxin or even requires the testing take place, you can be assured that Diamond Pet Foods will continue with its stringent, all-be-it imperfect testing methods, as a part of its good manufacturing practices.
Diamond Pet Foods is a good model among pet food manufacturers and a company you can be proud to work for or purchase products from. It is a company with sound organization and management practices. In fact, the company’s chief operating officer, Mark Brinkmann, is a hands-on manager and very involved in the company’s day-to-day activities. One thing that makes the company a success is that Brinkmann and other company executives practice issues management, a system that involves monitoring, preventing, and anticipating potential problems and crises before they occur.

Although Diamond Pet Foods is dedicated to warding off potential problems, logic tells sensible people like yourself that all businesses are susceptible to crises. As you or any other reasonable person knows, it is impossible to anticipate all potential crises. However, the company’s credo is to always operate in good faith in all situations, including crises. “If we do the right thing (when faced with a crisis), we can recover,” says Brinkmann.

Diamond Pet Foods has taken steps to prevent crises from occurring. However, in spite of Diamond Pet Foods efforts, the media would not hesitate to make Diamond Pet Foods a target of criticism. The media are likely to criticize Diamond Pet Foods regardless of its effort taken in solving the problem. The media’s criticism could be so severe that it may distort your impression of Diamond Pet Foods and cause you to doubt the company and its products.

Companies are susceptible to a variety of crises, including workplace accidents. In fact, a recent Department of Labor study found that each year 500,000 workers are injured while on the job. As part of its hiring practices, Diamond Pet Foods makes all employees undergo extensive safety training prior to operating any equipment. Furthermore, the company employs a safety inspector who monitors employees daily. Employees found not in compliance are fined, while those practicing safe standards are rewarded with money and prizes.

Bureau of Labor Statistics data shows that homicide is the second leading cause of death in the workplace, and USA Today reports that in an average week in U.S. workplaces, one employee is killed and at least 25 are seriously injured in violent assaults by current or former co-workers. Diamond Pet Foods is concerned about workplace violence. The company conducts background checks and refuses to hire applicants convicted of violent crimes. Diamond Pet Foods also trains supervisors how to intervene when troubling employee behavior surfaces. In addition, disciplinary processes may be handled with security officers present and employees may have to pass through metal detectors before such meetings. The company also makes counselors available to employees experiencing stress both on and off the job.

Although all companies are susceptible to crises, you can rest assured that Diamond Pet Foods is committed to warding off potential problems as best it can through issues management. It is a company you can be proud to work for or purchase products from.
Diamond Pet Foods is one of the nation's leading manufacturers of super-premium pet foods and is the choice of top breeders, kennel owners, sporting enthusiasts and pet lovers like yourself. But as any pet lover knows, along with the manufacturing process comes the potential for contamination of pet food products. For example, a deadly fungus, called aflatoxin, can occur in corn, which is a main ingredient in pet food. If ingested by pets, aflatoxin can lead to liver damage and even death.

Mark Brinkmann, Diamond Pet Foods chief operating officer, is concerned about the potential for aflatoxin contamination in your pet’s food. Brinkmann and other Diamond Pet Foods’ employees are pet owners themselves. “I know how much they love their own pets and how special animals are to them,” says one loyal customer. “I feel they would do everything in their power to ensure they are selling only the safest pet food products.”

Brinkmann says employees feed only Diamond Pet Foods products to their own pets. “As pet lovers ourselves, we want only the best for Fido,” says Brinkmann. “Therefore, we put only the safest pet food products on the market.”

In spite of Diamond Pet Foods’ efforts to avoid contamination of your pet’s food products, the media would not hesitate to make the company a target of criticism, should such contamination occur. The media are likely to criticize Diamond Pet Foods in spite of the company’s efforts to head-off such a crisis. Sometimes the media’s criticism can be so severe that it may distort your impression of Diamond Pet Foods and cause you to doubt the company and its products. This is unfortunate, because instead of sensationalizing the news, the media should focus on giving news watchers like yourself information on keeping your pet safe, healthy and happy. When the media focus on sensational stories, it prevents important information from getting communicated to people like yourself.

Just last week Diamond Pet Foods turned away a contaminated truckload of corn, and if not for the dedication of loyal and trusted employees the fungus might have made it onto store shelves. “For our employees, this is more than just a job, it’s a passion,” says Brinkmann. “I know what it’s like to lose a pet,” says a company employee. “It hurts. I don’t want anyone to go through that type of pain.”

In the past few years, the number of rejected truckloads at the company’s manufacturing plants has increased. Brinkmann credits employees’ care and affection for animals. “Because our employees are pet lovers themselves they go that extra mile to ensure our products are safe,” he says. In spite of dedicated and compassionate employees, testing protocols for aflatoxin are not perfect. The fungus can exist in pockets and be missed, according to pet food industry experts. Despite this, Brinkmann feels his company’s testing procedures are good. “Our employees care about pets and the people that love them,” says Brinkmann.
PHASE I (IDA)

DIAMOND PET FOODS

Diamond Pet Foods is a good model among pet food manufacturers and a company you can be proud to work for or purchase products from. It is a company with sound organization and management practices. In fact, the company’s chief operating officer, Mark Brinkmann, is a hands-on manager and very involved in the company’s day-to-day activities. One thing that makes the company a success is that Brinkmann and other company executives practice issues management, a system that involves monitoring, preventing, and anticipating potential problems and crises before they occur. Diamond Pet Foods realizes a crisis will not only negatively impact the company but also people like yourself.

Although Diamond Pet Foods is dedicated to warding off potential problems, as you know, all businesses are susceptible because it is impossible to anticipate all potential crises. However, Diamond Pet Foods’ credo is to always operate in good faith in all situations, including crises. “If we do the right thing (when faced with a crisis), we can recover,” says Brinkmann.

Diamond Pet Foods cares about people like yourself – whether an employee, customer or member of the community; however, despite steps the company has taken to prevent crises from occurring, the media would not hesitate to make Diamond Pet Foods a target of criticism. Sometimes the media’s criticism can be so severe that it may distort your impression of Diamond Pet Foods and cause you to doubt the company and its products. This is unfortunate because instead of sensationalizing the news, the media should focus on informing news watchers like yourself about issues that impact your daily lives – issues dealing with your government, community and health. When the media focus on sensational stories, it prevents important information from getting communicated to people like yourself.

Companies are susceptible to a variety of crises including workplace violence. Diamond Pet Foods cares about both current and former employees’ mental health and takes extra steps to ensure that all firings, layoffs and employee disputes are handled in a compassionate and supportive manner. The company makes counselors and physicians available to employees experiencing stress and ensures the working environment at Diamond Pet Foods is a positive and friendly one.

Thousands of companies are faced with workplace injuries every year. Just last week, a young man working in a mill in a nearby town lost his arm. The man’s limb was cut off just below the shoulder while he was operating a grain elevator. Diamond Pet Foods feels obligated to keep its employees safe. That’s why the company makes all employees undergo extensive safety training prior to operating any equipment. Diamond Pet Foods wants its employees to remain happy and healthy and feels the welfare of its employees’ is a top priority.

Although all companies are susceptible to crises, Diamond Pet Food feels an obligation to people like yourself and therefore is committed to warding off potential problems as best it can.
PHASE I (CONTROL)

A TOWN IN TWO TIME ZONES

How is it possible for a basketball to be tossed into the air, and not come down until an hour later?

In tiny College Corner, Union Elementary School Principal Dan Shepherd has the answer. He straddles the imaginary state line that runs smack dab down the middle of the school’s quaint, 80-year-old gymnasium and shares a bit of local lore with a couple of out-of-towners.

"Back in the old days," he said, "before the whole school embraced Eastern Standard Time, it was possible to launch a long shot from the Indiana side of the basketball court at 3 p.m. and the ball wouldn't find the net on the Ohio side until an hour later." Technically, points out the Connersville News Examiner, despite rules the school observes, that still means "during part of the year, a good shooter can launch a shot from the Indiana side of the court and it will tickle the twine on the Ohio side of the court an hour later."

For more years than most of the 4,000 or so people who call College Corner home can remember, the town has been a rather schizophrenic place when it comes to the time of day.

Because the community, like the local school, is split in half by the Ohio-Indiana line, residents must deal with two time zones for much of the year. While those on the Buckeye side of the state line are governed by Eastern Daylight Time, their Hoosier counterparts step to the beat of Eastern Standard Time.

But all that changed this April when the entire state of Indiana began observing daylight savings time, and many College Corner residents say they were glad to see the change happen.

"I don't see any problem with going to daylight-savings time," said Rick Stevens, 48, a College Corner native and a member of the local volunteer fire department for 22 years. "Having two time zones really doesn't have any effect on the fire department, but having just one might make planning activities a little easier for some people."

Vickie Massey, 44, a waitress at Tina's Country Kitchen Restaurant on the Indiana side of town, agreed. "One good thing is that people have quit asking, 'Is that Ohio or Indiana time?' whenever they hear about an event that's going to take place around here," she said.

Scott Cline, a bartender at Deano's College Corner Tavern - one of two Indiana watering holes that sit side-by-side a scant 20 yards from the Ohio-Indiana line - was satisfied with Eastern Standard Time. "We like it," he said, "because it allows us to stay open an hour longer every day."

Gary Gayhart, weekend disc jockey at Deano's, recalled the first time his oldest son played a junior high school basketball game for the Union Trojans. "It was about 15 years ago," he said. "Gary scored some of his points in Ohio and the rest in Indiana. It was crazy."