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BUILDING RESISTANCE TO FRONT GROUP STEALTH: A THEORETICAL
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SYSTEMATIC PROCESSING MODEL

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SYSTEMATIC PROCESSING MODEL

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Dedication

I dedicate this dissertation to my husband Jeremy. You are the personification of God's goodness and faithfulness in my life. Thank you for your love, leadership, prayer, support, and encouragement.

I also dedicate this work to my family near and far.

To my mom and dad for praying for me every day;

To my sisters who have taken risks, follow their dreams, and love their dear families; and

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Abstract

This experimental research tested two motivational factors drawn from the heuristic processing model (Chaiken, 1980) to understand the role of message processing in the success of deceptive front groups. This research extended a series of applications of inoculation theory as a strategy to confer resistance to deceptive front group messages. Pfau et al. (2007) found inoculation produced resistance to front group attacks; however Robertson et al (2010) did not. Front groups often shift responsibility away from politicians or corporations, use vague arguments, and hide behind deceptive names. This research explored whether a standard inoculation message is sufficient to generate resistance to front groups' messages or if an improved inoculation treatment called RAN (responsibility/arguments/names) inoculation is necessary. Potential differences in information-seeking behaviors between the standard, RAN, and control group using Camtasia software were explored. Finally, it was anticipated that individuals who receive inoculation treatments are more accurate at classifying front groups than controls. Participants were 226 students from the Communication research pool at the University of Oklahoma. MANOVA, multiple regression, and Chi-Square tests were employed to test the research hypotheses. There were no differences between groups on the motivational variables or message processing, however the RAN treatments were superior to the standard inoculation treatments in that they produced more focused information-seeking behaviors. Overall, those in both inoculation conditions were more accurate at identifying front groups than controls.

Chapter 1: Introduction

Van O'Dell, a Vietnam veteran of the United States Navy earnestly faced the camera to tell the American public his side of the story. "John Kerry lied to get his bronze star. . . I know, I was there, I saw what happened" (Swift Boat Veterans for Truth, 2004). His remarks were aired in an advertisement called "Any questions?" which was funded by Swift Boat Veterans for Truth (SBVT) (Factcheck.org, 2004). Initially, the attacks against Kerry lodged by SBVT appeared to be accurate eyewitness testimony of the soldiers who had fought alongside John Kerry. However upon further exploration of the Navy records, the seemingly honest testimony of betrayed veterans was later exposed as a deeply deceptive campaign (Factcheck.org). Not only was their testimony revealed to be false but it was later found the SBVT was formed and funded not by a group of concerned veterans, but rather by the largest campaign contributor to the Republican Party in the state of Texas, Bob Perry (Factcheck.org). Even Republican President George W. Bush, Senator Kerry's direct opponent for the presidency publicly appealed to SBVT to stop the ads (Blitzer, 2004). In the end, it became clear that SBVT was not a grassroots group but rather a front group, which Senator Kerry believes cost him the election (Joyner, 2006).

According to Fitzpatrick and Palenchar (2006) "Front groups are controversial public relations techniques used by organizations to influence public opinion and public policy on behalf of undisclosed special interests" (p. 203). These groups are controversial not because they weigh in on hot-button issues but

because these groups are designed to appear separate or distinct from the corporations or political interest groups, whether conservative or liberal that supports them. As a result they can advocate for corporate or policy outcomes that may be unpopular for the business or politicians to hold. Front groups are designed to conceal their corporate and individual funders, which allow them to promote their interest while at the same time shielding those funders from public responsibility and scrutiny (Fitzpatrick & Palenchar, 2006). Pfau, Haigh, Sims, and Wigley (2006) coined the term *stealth campaigns* to define the communication campaigns run by front groups. In particular, they advance that “when front-groups engage in campaigns using names that deceive, they are engaged in stealth” (p. 1). Because front groups like SBVT are designed to appear as a legitimate grassroots movement simply trying to gain the attention of their elected representatives, these groups usually have “noble sounding names, such as “Citizens for [Something Good]” (Fitzpatrick & Palenchar, 2006, p. 203). However in reality, front groups like SBVT are artificial or manufactured grassroots movements. The artificiality of these groups lead former United States Senator Lloyd Bentson to call them “Astroturf” (Young, 2009).

There is more to a front group than clever names and the funders they carefully conceal. Front groups are created to push both conservative and liberal political agendas (Isikoff, 2010) regardless of how many or how few people actually support their position on the issues (Young, 2009). While their political or financial agendas may differ, what unifies them is their common usage of stealth

messages, which are deceptive, persuasive; clandestinely muddy the water, and thwart citizens', consumers', and politicians' ability to consider all relevant information as they attempt to make sound decisions (Pfau et al., 2007). For example, one front group, the Center for Consumer Freedom, outwardly portrays itself as a consumer advocacy group promoting positive choices such as healthy food options for children, but lobbies behind the scenes to allow restaurants and beverage companies to continue to distribute unhealthy foods (Rosenblum, 2007 par. 3).

Another front group, the American Council on Science and Health (ACSH), is funded not by scientists or health professionals but rather by corporations such as Burger King, NutraSweet, and Exxon (Beder, 1998). Rather than promoting healthier living through science, the ACSH designs stealth campaigns to make fast food sound healthy and pesticides like a panacea (Beder, 1998). In this case as in many others, the name of the front group and their goals do not align. While these examples demonstrate the cunning deception of front group stealth messages, they represent only a few of the front groups that have influenced public opinion and policy on important issues such as health, nutrition, and environmental resource management.

It should be noted that not all public relations practitioners employ the strategy of using front groups and stealth messages to achieve their goals. In fact, the Public Relations Society of America (PRSA) expressly condemns the use of front groups (Fitzpatrick & Palanchar, 2006). However, this condemnation does

not seem to stop some practitioners from forming front groups and launching stealth campaigns. There was a time in which public relations practitioners were much more careful to craft messages that told some version of the truth. Indeed, Gary McCormick, a past chair of PRSA, argues that while there are some instances in which public relations practitioners have taken great liberties with the truth, in general, they try to avoid deceptive campaigns (Sullivan, 2011).

Public relations practitioners have generally been careful to avoid dishonesty in their messages because getting caught is highly probable and puts their public image at risk. They understood that whatever the public relations problem was before the lies were discovered would seem minor compared to the potential publicity crisis afterwards (Sullivan, 2011). In short, public relations practitioners have generally been careful to tell the truth because they did not want to suffer the potential chaos of discovery. Front groups changed the need for those who were only honest for fear of getting caught because corporate or individual funders of the front groups are carefully concealed. Indeed, “front group backers perceive the rewards of winning as outweighing any potential risks” (Fitzpatrick & Palenchar, 2006, p. 221).

Not only have front groups emerged as a creative attempt to dupe the public, but the decline of newspapers and journalists have cut into the ability of the news media to hold these groups accountable (Sullivan, 2011). Furthermore, front groups typically fall under “Section 527 of the Internal Revenue Code, which grants tax-exempt status to political committees at the national, state and local

level” (Center for Public Integrity, 2008). Current 527-group legislation also makes it extremely difficult for journalists to establish the links between the front groups and the individuals, businesses, organizations, political parties, and politicians who finance them (Fitzpatrick & Palenchar, 2006; Sullivan, 2011). Indeed, according to Fitzpatrick and Palenchar (2006) 527-groups are not legally required to report publicly where their funding comes from. Finally, as previously noted, while the PRSA specifically discourages its members from forming front-groups, there are no specific requirements for members of PRSA to actually abide by the organization’s guidelines (Fitzpatrick & Palenchar, 2006).

Although it is difficult to track down how much money front groups have at their disposal, there is some evidence that some of these groups are very well funded (Fitzpatrick & Palenchar, 2006; Sullivan, 2011). For example, the liberal group, Patriot Majority invested \$1.7 million in negative advertising against Harry Reid’s most recent challenger for Nevada’s Senate seat (Isikoff, 2010). The key concern with Patriot Majority is that this group like many other front groups does not disclose information about their contributors (Isikoff, 2010). Even if the groups do not have millions in their campaign coffers, they can still make a major impact on the outcome of a campaign. As a case in point, according to Factcheck.org, the SBVT campaign only raised around \$160,000. Young (2009) contends these groups often have large budgets despite having a small list of supporters. So while it is not exactly clear just how much money these front groups are spending on both consumer and political campaigns for both conservative and liberal efforts, the

amount of money small or large has the potential to change election and policy outcomes (Fitzpatrick & Palenchar, 2006; Sullivan, 2011). Even without hard data about the stealth campaign coffers, front groups weigh in heavily with media blitzes to push their misleading and potentially harmful messages in as many outlets as possible (Sullivan, 2011).

Up until recently, there was a lot of anecdotal evidence that front groups were effective (Fitzpatrick & Palenchar, 2006); however, there was no empirical documentation of the efficacy of front group stealth. To address this empirical gap, Pfau and colleagues (2007) designed an investigation to determine if front group stealth messages were indeed persuasive, how opinions about front groups and the companies that fund them change when their tactics are exposed, and whether individuals could be made resistant to front group stealth campaigns. Pfau and colleagues grounded their justification for why front groups would likely be effective in the dual processing models of persuasion, the heuristic model of persuasion (Chaiken, 1980; 1987) and the elaboration likelihood model (Petty & Caccioppo, 1981, 1986). They advanced that in many cases individuals are uninterested in politics or consumer issues and as a result they are not motivated to systematically process front group stealth messages and instead rely on simple cues like the pro-social sounding names of the groups. While they did not test this explanation, they did find that front-group stealth campaigns were persuasive.

In an effort to thwart the persuasiveness of front groups, Pfau and colleagues (2007) proposed that an application of inoculation theory (McGuire,

1961a, 1961b). Their theorizing was well warranted as a recent meta-analytic review conducted by Banas and Rains (2010) of 39 empirical investigations spanning over three decades of resistance research presents compelling evidence that the inoculation strategy is effective in a variety of contexts and is a better method for promoting resistance than simply reinforcing existing attitudes.

Inoculation theory provides a theoretical account for the protection of attitudes built around the metaphor of a medial vaccination (McGuire, 1964). Inoculation scholars argue that the reason why inoculation effectively promotes resistance because the experimental treatments forewarn individuals that their existing attitudes are likely to come under attack and equips those individuals with arguments with which to respond to the challenges (McGuire, 1964; Compton & Pfau, 2004; Szabo & Pfau, 2002). Because of the historical success of inoculation treatments (Banas & Rains, 2010) it is also no surprise that Pfau and colleagues also found that inoculation promoted resistance to front group stealth.

In an effort to contribute additional depth to what is known about the influence of deceptive front groups, and to better understand how to prevent their deceptive tactics, Robertson, Pfau, Hansen, Averbek, Kelley, and Eckstine (2010) conducted a second inquiry. Robertson and colleagues suggested that in order to understand why front groups are persuasive, it is important to test the dual message processing explanation that Pfau and colleagues had originally suggested but did not test. Opting for an application of the heuristic systematic processing model of persuasion (Chaiken, 1980, 1987), Robertson et al. suggested that individuals who

engaged in heuristic processing would likely evaluate front groups with higher levels of authoritativeness and character, two dimensions of source credibility (McCroskey, 1966), than individuals who engaged in systematic processing. Their predication was based on Pfau and colleagues' (2007) argument that the reason front groups are successful is because people do not take the time to carefully scrutinize their motives, tactics, and the differences between the pro-social names of the groups and the actual messages. Conversely, individuals who were highly involved with the issue featured by the front group message, may be more likely to systematically consider each one of these message features. While Robertson and colleagues found a significant positive relationship between heuristic processing and ratings of front group credibility, they were disappointed to discover that there was a positive albeit non-significant relationship between systematic processing and ratings of front group source credibility.

To further explore the ability of inoculation to confer resistance to front group stealth messages, Robertson et al., (2010) proposed that if an individual was made aware of the tactics of one front group through exposure to the inoculation strategy, they should be resistant to the counterattitudinal attacks of that front group as well as the tactics of other front groups. This proposal was an exploration of Compton and Pfau's admonition to explore the potential umbrella effect of inoculation or the ability of inoculation to promote resistance to the same issue addressed in the treatment as well as related but different ideas (2004). Unfortunately, Robertson and colleagues did not find inoculation to be effective for

any of the front group stealth messages, making it impossible to conclude that a single inoculation message could foster resistance to a multitude of front group attacks.

These mixed results are peculiar given the inoculation messages and the attack messages employed in both studies were virtually identical as Robertson and colleagues attempted to replicate the research conducted by Pfau and colleagues (2007). The only difference between the messages in the two studies was that the standard inoculation messages designed for the Pfau et al. (2007) investigation were adapted by Robertson and colleagues to include more intense language designed to trigger anger in the participants (Lazarus & Lazarus, 1994) in response to deceptive front-group messages than the standard inoculation messages. Simply put, the original messages were coded as cognitive inoculation treatments and the adapted messages were coded as anger inoculation treatments. Unfortunately, the results of the Robertson et al. (2010) individuals in both the cognitive inoculation and the anger inoculation group reported more anger than controls, but the anger-based inoculation treatment did not generate significantly more anger than the cognitive inoculation messages.

This finding reinforces the likelihood that participants perceived the inoculation messages to be very similar, and yet, the findings were different. Namely, Pfau and colleagues (2007) found that compared to control messages, the inoculation messages generated greater threat, counterarguing, and resistance to front group persuasion. Alternatively, Robertson and colleagues (2010) found that

the inoculation messages generated more threat than the control groups, but did not have enough evidence to conclude that real differences existed between the level of counterarguing output and the level of resistance to stealth messages.

The purpose of this investigation is to explore and experimentally test possible explanations for the competing findings of Pfau et al. (2007) and Robertson et al. (2010). To this end, this research will present a more complete theoretical merger between the heuristic-systematic model (HSM) of persuasion and inoculation theory. While Robertson and colleagues attempted to apply the HSM, they did not use the experimental procedures typically used in the HSM research, which may account for some of the unexpected results. These methodological missteps prevented the true test of the merger between the heuristic model of persuasion and inoculation theory.

The proposed theoretical linkages between the HSM and inoculation theory will likely produce several improvements that should equip individuals with the motivation and ability to identify front groups and to resist their deceptive stealth messages. Central to the HSM is the motivation and ability to process messages (Chaiken, 1980). This research will manipulate the participant's level of accuracy motivation for processing both the inoculation messages and in the form of a motivational booster session prior to the attack messages drawing from HSM. As with previous HSM studies, this investigation will assess both the participants' level of desired confidence and their actual confidence that they could accurately detect a front group stealth message. Furthermore, participants will be given the

opportunity to seek additional on-line information about front groups before they engage in the counterarguing session. It is reasonable to assume that the participants who have a higher level of motivation, and who perceive a low level of confidence about their ability to identify front groups will engage in more focused information seeking about front groups than their less motivated colleagues.

Second, the HSM advances that there are times when people can be motivated to systematically process information, but when faced with ambiguous or conflicting information, heuristic cues are still influential (Todorov, Chaiken, & Henderson, 2002). The present research suggests front group messages are by nature deceptive and ambiguous. Therefore this investigation will add an additional inoculation message, referred to as a RAN inoculation message because it carefully details how front group shift responsibility, lack argument quality, and have misleading names. This RAN inoculation message will follow the previous inoculation messages but will attempt to stimulate a higher level of motivation to identify whether a message originates from a front group and to identify questionable claims within a message and to stress the ambiguous nature of front group stealth messages. It is reasonable to assume that the ambiguity of front group stealth messages might lead participants to draw on heuristic cues to process the messages. However, with the additional motivation and training integrated into the new inoculation message, they may be more equipped to evaluate both the heuristic cues of front group messages such as the positive sounding names or the vaguely positive sounding activities of the front groups as well as evaluate the

quality of the arguments presented together with the likelihood that the message may withhold important facts.

The results of this research should be an important step toward understanding the theoretical linkages between the HSM and inoculation theory. These linkages are important because they may shed light on precisely why individuals are persuaded by front group stealth messages, but also if these reasons can be directly counteracted through inoculation treatments. This investigation also has merit for applied research because it may determine what inoculation strategies can best promote resistance to deceptive front group stealth messages, which have become a dominant force in policy debates at the local, state, and federal level.

Chapter 2: Review of Literature

This chapter builds an evidentiary foundation to support why inoculation *should* promote resistance to front group stealth campaigns that advocate counterattitudinal positions. Next, the two applications of inoculation to the context of front group stealth messages conducted by Pfau et al. (2007) and Robertson et al. (2010) will be explained in detail. Then, extant theory and research from the heuristic-systematic processing model of persuasion (HSM) is explored in order to present theoretical improvements to inoculation theory that can equip inoculation to effectively counter front group stealth messages.

Inoculation Theory

In the early 1950s and 60s, a time in which persuasion research and experimentation were well underway, very little scholarly research had been conducted on how individuals can be equipped to resist persuasion (McGuire, 1964). During this period, there was a considerable concern about the influence of enemy propaganda. In particular, Szabo and Pfau (2002) advance that many American prisoners of the Korean War were unable to defend their original beliefs about the values of democracy and freedom because they had never considered the values of freedom and democracy to be disputable. As a result, the prisoners were vulnerable to the enemy's propaganda campaign (Szabo & Pfau, 2002).

Building a Theory from a Medical Analogy

Initially, the inoculation analogy was the product of a concerted effort to counter enemy wartime propaganda. Lumsdaine and Janis (1953) conducted an

experiment in order to determine if one- or two-sided messages were more effective at promoting resistance to enemy propaganda attempts. They found two-sided counterpropaganda, or messages that presented the recipients with both arguments to support their own position and possible challenges to that position, more effectively stabilized desired opinions than one-sided counterpropaganda messages, which only supported their position (Lumsdine & Janis, 1953). The researchers concluded that the two-sided messages were superior to one-sided messages because when an individual is “given an advance basis for ignoring or discounting the opposing communication and, thus ‘inoculated,’ he will tend to retain the positive conclusion” (p. 318). Though Lumsdine and Janis were the first to mention the inoculation analogy, McGuire (1961a, 1961b) is largely responsible to extending the medical analogy into a credible theory. This section will discuss McGuire and colleagues’ original formation of inoculation theory and then explain the specific theoretical components and functions of the inoculation process.

Just a few years after Lumsdine and Janis coined the inoculation analogy, McGuire and colleagues published a flurry of studies transforming a creative analogous explanation for the superiority of two-sided messages in stabilizing attitudes into a carefully posited theory – inoculation theory (McGuire, 1961a, 1961b, 1964; McGuire & Papageorgis, 1961, Papageorgis & McGuire, 1961). Recall that Lumsdine and Janis (1953) suggested that two-sided messages served the inoculation function because they provided a reason to discount propaganda. However, McGuire’s inoculation theory was not based on ignoring or discounting

counterattitudinal messages. Rather, McGuire built inoculation theory around several basic assumptions about an individual's attitudes. First, McGuire (1964) advanced that people are fundamentally unaware of challenges to their deeply held beliefs. Because they are largely naive to the vulnerability of their attitudes, they are "unpracticed" at putting up any legitimate defense of their attitudes in the event they are attacked (McGuire, 1964). Because people are unaware of potential challenges to their beliefs; they also have no incentive to protect them (McGuire, 1964). Simply put, when people don't realize their attitudes are vulnerable, they have no reason to protect these attitudes, and as a result are unprepared to do so.

The assumption about the vulnerability of attitudes to counterattitudinal attack is what makes the inoculation analogy so fitting. In particular, vaccines are administered to individuals who have not been infected, but are vulnerable to the virus. McGuire (1964) advanced:

In the biological situation, the person is typically made resistant to some attacking virus by pre-exposure to a weakened dose of the virus. The mild dose stimulates his defenses so that he will be better able to overcome any massive viral attack to which he is later exposed, but is not so strong that this pre-exposure will itself cause the disease. (p. 200).

This analogy underscores two very important components of the inoculation process - the inoculation pretreatment and the counterattitudinal attack. Just like a vaccination is administered for the purpose of preventing later viral attacks, in an early summary of inoculation research McGuire (1964) explains that the majority of the experiments began with the inoculation pretreatment. In the initial inoculation pretreatments, McGuire and colleagues believed that the exposure to

small amounts of the counterattitudinal message was all that was necessary to generate threat and the subsequent protection of the attitude from later attack but later posited that threat was the combination of the realization of the vulnerability of a previously unprotected attitude and the exposure to the challenging message (Compton & Pfau, 2004). This analogy underscores two very important components of the inoculation process - the inoculation pretreatment and the counterattitudinal attack. Just like a vaccination is administered for the purpose of preventing later viral attacks, in an early summary of inoculation research McGuire (1964) explains that the majority of the experiments began with the inoculation pretreatment. In the initial inoculation pretreatments, McGuire and colleagues believed that the exposure to small amounts of the counterattitudinal message was all that was necessary to generate threat and the subsequent protection of the attitude from later attack but later posited that threat was the combination of the realization of the vulnerability of a previously unprotected attitude and the exposure to the challenging message (Compton & Pfau, 2004).

The integration of a threat into inoculation pretreatment messages was believed to address McGuire's assumption that people are unmotivated to defend their ideas, however it did not address the concern that people are vulnerable to counterattitudinal attacks because they have very little or no practice defending their positions. As a result, McGuire and colleagues conducted a series of experiments to determine what type of content in the inoculation messages and what level of active participation from the participants would maximize the

participants' ability to defend their attitudes. In particular, McGuire (1961a) determined that while supportive defense, a strategy designed to bolster the strength of the unprotected attitude *did* effectively strengthen the attitude, when that attitude later came under attack, the supportive defense did not provide protection for that attitude. For example, if someone believes that recycling should be mandatory around the country, a supportive defense message would essentially reinforce their perspective making it stronger. However, if that same person only heard positive things about recycling in a supportive defense message, they would not be equipped to defend that view in the face of a strong persuasive message opposing mandatory recycling legislation. McGuire (1961a) concluded that that best defense strategy was a combination of both supportive and refutational defenses, a strategy designed to highlight the vulnerability of an attitude and provide possible arguments in defense of the individual's position. This conclusion is especially important given that people are generally not motivated to protect ideas that they don't realize are vulnerable and as a result are unequipped to make strong arguments to support their positions on the issues.

McGuire and Papageorgis (1961a) also found that refutational defenses were superior to supportive defenses in generating resistance to counterattitudinal persuasion. These findings provide empirical legitimacy to the theoretical application of the inoculation analogy because even a healthy individual is vulnerable to a virus, while an individual who has been vaccinated is much more likely to be resistant to the virus (McGuire & Papageorgis, 1961).

In addition to finding the best type of defense strategy for inoculation messages, McGuire and colleagues also wanted to address one of the original assumptions of inoculation theory. The original assumption was that because people do not realize the vulnerability of their attitudes, they are unprepared to defend those attitudes (McGuire, 1964). McGuire and Papageorgis (1961) posited that if the study participants were left alone to form a defense of their attitudes, their lack of practice would lead them to produce only a few and likely weak arguments in support of their position on the issues. This strategy was referred to as an active defense meaning that the participants must actively generate their own arguments to support their position on an issue.

Conversely, if the participants were given a group of possible defenses to attacks on their attitudes, this strategy would facilitate a more effective defense upon exposure to later attack. This strategy was referred to as a passive defense. The results of the research provided support for their hypotheses. McGuire and Papageorgis even comment that the participants' active attempts to generate a defense without assistance yielded "meager" essays (p. 334). They conclude that the participants' inability to generate legitimate defenses to their position may have had an even greater weakening effect than expected because the participants might have surmised that their original position was uninformed or indefensible (McGuire & Papageorgis, 1961).

As McGuire and Papageorgis (1961) considered the possible limitations of their study, an entirely new line of inoculation research was born. Specifically,

they noted that the results of their research revealed a refutational defense pretreatment was a better strategy for conferring resistance to counterattitudinal persuasion than a supportive defense strategy. However, they argued that the resistance they observed from the participants in the refutational defense conditions might have resulted because they were exposed to a diluted form of the *same* argument they later read in the attack session. McGuire and Papageorgis suggested in their results section that the refutational defense messages designed for the inoculation studies may have a “general immunizing effect,” or the ability to mitigate the influence of latter exposure to stronger versions of *either* the same attacks they read in the inoculation pretreatment or attacks not presented in the inoculation pretreatments (p. 333). They re-referenced the medical inoculation analogy advancing “inoculation with a weakened form of one strain of a virus produces immunity to other strains as well” (p. 333).

McGuire and Papageorgis (1961) suggested that if indeed refutational defenses produce a general immunizing effect, it would likely result because the participants would realize their attitudes were contestable. Recognizing the threat or the vulnerability of their attitudes should in turn, lead them to consider other possible attacks and to develop additional arguments in support of their own position. Furthermore, as the refutational pretreatments expose participants to possible attacks on their position, when they later encounter additional other attacks, they are likely to discount them. While McGuire and Papageorgis (1961)

laid the foundation for the logic of the general immunizing effect, McGuire (1961a) provided evidentiary support for this line of argument.

McGuire (1961a) advanced that for individuals who received the combined strategy of supportive defense and refutational defenses “the conferred resistance is almost as great against novel as against the same counterarguments” (p. 194). Essentially, participants were resistant to counterattitudinal attacks on an issue even when it was not the exact attack they had been warned about in the inoculation pretreatment. This finding was of great importance to the inoculation strategy because it is unrealistic for people to think of every conceivable argument against their attitude before they are exposed to it. In fact, Compton and Pfau (2004) advanced that the general immunizing effect is a significant finding “because it means that inoculation against a limited number of counterarguments affords protection against all possible counterarguments” (p. 104-105). The general immunizing effect greatly expands the practicality of applications of inoculation theory because it would be difficult to foresee all possible counterarguments (Compton & Pfau, 2004).

In summary, inoculation theory has been built and refined using the analogy of the medical vaccination (McGuire, 1964). The research has demonstrated that unless people realize the vulnerability of their attitudes, they are likely to be unmotivated to protect those attitudes leaving them exposed and susceptible to persuasion. In addition, the research and theorizing demonstrates that it is not enough to simply reinforce a person’s existing belief on an issue. Rather, they need

to be equipped with the seeds of refutational defenses to help them understand and prepare for the future counterattitudinal attacks. It is not enough for individuals to realize their attitudes are vulnerable, but rather the research demonstrates that they need to be equipped with refutational preemptive arguments because if an individual has believed their attitudes to be self-evident, they are unprepared to defend them. Finally, the research demonstrates that inoculation works equally well when the attack message is identical to the forewarning contained in the pretreatment message as it is when the attack message presents a different or new argument.

The Efficacy of the Inoculation Strategy

McGuire and Papageorgis invested a great deal of time carefully applying analogous reasoning to build inoculation theory (McGuire, 1961a, 1961b, 1964; McGuire, & Papageorgis, 1961; Papageorgis, & McGuire, 1961) and it has become one of the leading theoretical frameworks for understanding how individuals protect their attitudes and resist counterattitudinal persuasion (Compton & Pfau, 2004). In part, the fascination with inoculation theory has been the fitting analogy that has driven much of the theorizing and resistance research. Without question the inoculation analogy has captured many researchers' attention; however what has sustained interest for almost a half a century is the consistency of the inoculation strategy to confer resistance to persuasion in many contextual domains (Banas & Rains, 2010; Compton & Pfau, 2004; Szabo & Pfau, 2002).

Together, threat and counterarguing have been credited with the protection of a host of attitudes in a variety of contexts in the initial applications of inoculation theory and more modern applications as well. For example, experimental studies employing the inoculation strategy have revealed successful applications in the context of adolescent health promotion (Pfau & Van Bockern, 1994; Pfau, Van Bockern, & Kang, 1992) in which inoculated adolescents with low self-esteem, the highest risk group for smoking were significantly more resistant to tobacco products and less likely to report smoking (Pfau, et al., 1992).

Not only has the inoculation strategy been effective in protecting negative attitudes toward tobacco use among at-risk teens, inoculation has been demonstrated as an effective strategy to confer resistance to counterattitudinal persuasion in the political communication context. In particular, inoculation effectively conferred resistance to attacks made on an individual's political candidate of choice, especially when the individual strongly identifies with their own political party (Pfau & Burgoon, 1988). Inoculation even works when the attacks on their candidate come in the form of direct mail (Pfau, Kenski, Nitz, & Sorenson, 1990). Inoculation has also conferred resistance to attacks on an individual's position whether they be for or against such hot-button political issues such as a complete ban on the manufacture and sale of handguns, the complete legalization of marijuana, the complete legalization of gambling, and the restriction of television violence (Ivanov, Miller, et al., 2012; Miller, et al., 2013).

Inoculation has also been a modestly effective strategy for conferring resistance to attacks on commercial products such as pizza, tennis shoes, candy bars and writing pens that are delivered through comparative advertising (Pfau, 1992). In a further commercial application of inoculation theory, Bechwati and Siegal (2005) were interested in what would happen when individuals make a purchase decision, but then later are exposed to comparative advertising, which undermines the legitimacy of their initial purchasing decision. They were also interested in determining if an inoculation treatment was more effective when it showed two portable CD player options on a single screen or if they showed one player on one screen and a second player on a later screen. They found that individuals who received the information about both CD players simultaneously were more loyal to their first choice when faced with a comparative advertisement attack message than those who read information about the players at different time sequences. This research has important implications for not only consumer decision-making but also post-consumer decision confidence and loyalty. Inoculation also made healthy attitudes about credit and credit cards more resistant to the influx of credit advertisements on college campuses (Compton & Pfau, 2004) when the inoculation arguments were as strong as the attack messages.

Moreover, these applications of inoculation theory in the context of health promotion, political advertising, and commercial advertising in addition to many more studies provide the evidentiary support for the conclusion that “content is no longer a boundary condition of inoculation research” (Banas & Rains, 2010, p.283).

Furthermore, the success of these studies provides empirical support for Szabo and Pfau's (2002) conclusion that "Existing research on inoculation demonstrates irrefutably that it is an effective technique in promoting resistance to persuasion" (p. 233). Therefore it is predicted:

H₁: Individuals who receive inoculation pretreatments report more threat, counterarguing output, and resistance to counterattitudinal persuasion than individuals assigned to the control condition.

Unresolved Issues in Inoculation Theory

While the research above has detailed numerous contexts in which inoculation has effectively conferred resistance to counterattitudinal persuasion, inoculation is not a foolproof strategy. In fact, further exploration of the mechanisms that function to confer resistance is warranted because there are notable instances when inoculation has not been an effective strategy for conferring resistance to persuasion (Banas & Rains, 2010). For example, while Compton and Pfau (2004) found that inoculation was an effective strategy for promoting resistance to credit card advertisements, it was only effective when the quality of the inoculation message was the same as the quality of the attack message.

When the quality of the messages was mismatched, it seemed that inoculation failed to preserve the desired resistance (Compton & Pfau, 2004). This finding raises an important concern about the efficacy of inoculation messages. While individual experiments and the meta-analytic review conducted by Banas and Rains (2010) determined that the general immunizing effect works to promote

resistance when the issues in the attack messages are identical to those found in the inoculation message and when the attack messages are novel to the individual, Compton and Pfau's (2004) findings may provide a boundary condition to the general immunizing effect. In particular, inoculation may be effective for both the same arguments and different arguments, but only when the strength of the messages is equally matched.

Furthermore, in the context of health promotion, Godbold and Pfau (2000) investigated the efficacy of inoculation to confer resistance to underage drinking. They found that all the participants (both inoculated and non-inoculated) perceived there was a real threat that they would be encouraged by their peers to consume alcohol. Furthermore, their results reveal that the pretreatment messages were only effective in generating resistance to underage drinking when the inoculation messages used a social norming strategy. In particular, they created one inoculation message, which instructed teens that fewer of their peers consumed alcohol than they actually thought and explained that when they engage in underage drinking, their peers would likely avoid their company. They found no difference in the level of resistance to consume alcohol between the informative inoculation condition, in which they reported facts about the physical dangers of underage drinking such as injury and death and the control condition. Perhaps it is not surprising that the inoculation manipulation did not hold if the adolescents did not believe their friends would avoid them if they consumed alcohol rendering the message useless.

While the evidence presented to this point make it clear that inoculation is generally an effective strategy for conferring resistance to persuasion, further study of how to make inoculation more effective is still warranted. In particular, Banas and Rains (2010) suggest that there are still “unsettled issues” (p. 282) that need to be explored to maximize the efficacy of inoculation. The results of the meta-analytic review conducted by Banas and Rains present several important departure points for this investigation. First, they determine that inoculation is more effective for conferring resistance to counterattitudinal persuasion than simply reinforcing existing beliefs or receiving a control treatment. Although the effect size of the observed resistance was considered small (Banas & Rains), the efficacy of inoculation across different contexts provides an empirical basis on which inoculation scholars and practitioners to be reasonably confident that inoculation will be an effective strategy for conferring resistance.

While Banas and Rain’s (2010) meta-analytic findings provide a measure of confidence for the use and application of the inoculation strategy to protect attitudes, their findings invite further investigation into the way inoculation generates resistance. In particular, they explored several moderators that would affect the extent to which inoculation generates resistance. Among the moderators they tested were threat and issue involvement.

Threat is considered foundational to inoculation theory (Compton & Pfau, 2004; Szabo & Pfau, 2002). Based on the existing empirical research and narrative reviews of inoculation theory (Compton & Pfau, 2004; Szabo & Pfau, 2002), Banas

and Rains surmised that “after receiving the threat component of an inoculation treatment, individuals experience heightened motivation to produce attitude-bolstering materials and engage in counterarguing which enhances resistance” (p. 286). They predicted a positive relationship between perceived threat and the level of resistance. While they did find the relationship between threat and resistance to be positive, this relationship was not significant. This finding invites researchers to pursue additional tests of the role of threat in inoculation theory. The kind of threat involved is very small as it is only a threat to ideas and not an emotional or physical threat, so it should be expected to have a very small effect size. Banas and Rains (2010) call attention to this advancing “It is noteworthy, however, that the power for this test is quite low. Of course their null finding does not mean threat is not an important and key moderator, it is simply a clear invitation for future research to explore the role of threat in the inoculation process (Banas & Rains, 2010).

In addition to evaluating the role of threat in the inoculation process, Banas and Rains (2010) tested the extent to which issue involvement influences the level of resistance to counterattitudinal persuasion. Based on their review of the research, they predicted a curvilinear relationship between issue involvement and resistance such that individuals with a moderate amount of issue involvement would be more resistant to counterattitudinal persuasion than individuals with low or high involvement. Their results revealed no support for a curvilinear relationship between issue involvement and resistance. The results of their investigation also reveal no linear relationship between issue involvement and

resistance to counterattitudinal persuasion. Banas and Rains suggest one possible account for the lack of significance for their predictions about the role of threat and issue involvement in inoculation was the low amount of power in the tests of these relationships.

A second possibility for why the results were not significant is that issue involvement is generally confined to the issues selected for the inoculation experiments rather than a variable that is directly manipulated by the researchers (Banas & Rains, 2010). They suggest that researchers select topics in which participants have varying levels of involvement so as to demonstrate the differential influence of issue involvement on resistance. Moreover, to better understand the role of involvement, Banas and Rains suggest that future researchers should actively manipulate the level of the participants' involvement in order to better understand the role of this moderator in the process of resistance.

This investigation recognizes the importance of receiver motivation at all stages of inoculation starting with the topic selection, moving to the inoculation treatment and ending with the attack messages. A concept central to the inoculation process is motivation and receiver involvement is just one manifestation of motivation. Threat too, is considered to be the motivational force that leads individuals to engage in counterarguing and later resist counterattitudinal persuasion. Because Banas and Rains did not provide direct answers to the issues of threat and involvement, it is reasonable to assume that understanding the role of motivation is an important direction for future inoculation research.

Inoculation and Stealth Campaigns

The context of front group stealth messages is a fitting venue for improving what is currently known about motivation in inoculation research. Many of the issues that front group stealth campaigns focus their efforts around are relatively uninvolved to the general public and as a likely result, their messages are given little careful consideration (Pfau et al., 2007). Ultimately stealth messages can be very compelling not because of the merits of their arguments but because the names of the groups sound positive and the projects they undertake also sound vaguely positive (Pfau et al., 2007). This context would also be a fruitful area to explore in order to bring further clarity to the conflicting findings between two recent experiments that were conducted to determine the efficacy of inoculation to confer resistance to front group stealth messages.

While Pfau et al. (2007) found that inoculation was an effective strategy to promote resistance to front groups' stealth messages, the results of the Robertson et al. (2010) experiment failed to reproduce these results. Finally, the context of front groups is an excellent opportunity to present a theoretical merger between inoculation theory and a leading model in persuasion theory, the HSM. This theoretical merger was first suggested by Pfau and colleagues (2007) and later was nominally adopted by Robertson and colleagues (2010), but neither study has tapped into the full range of the possible conceptual mergers or experimental procedures offered by the body of experimental research provided by the HSM that could provide the maximum utility in both explaining the success of front group

stealth messages and generating the desired resistance to the deceptive front group messages. This section will introduce these studies and discuss their relevant findings.

Pfau and colleagues (2007) conducted an experiment to test the influence of front group stealth messages. They advanced while front group stealth messages were likely to be misleading and persuasive, front groups' effectiveness had never been tested empirically. They contended there are two possible accounts for why front groups would be effective. First, they advanced individuals are likely to give front groups a great deal of leeway or grace in how they present their messages because they themselves regularly present themselves in the most favorable light. Second, they are simply unmotivated to process front group messages (Pfau et al., 2007). A possible third argument is even if they are ethically suspect, front-groups may often—half the time, at least—offer pro-attitudinal arguments. Taken together, the lack of processing motivation coupled with the expectation the front group stands for something good, mixed with some potentially pro-attitudinal arguments should contribute to the greater persuasive impact of the front group message. The theory and research behind these two arguments is important to understand because both the Pfau et al. (2007) front group research and the Robertson et al. (2010) research were built around these two explanations.

To better understand this research, it is important to explore Pfau et al.'s (2007) account for front group effectiveness. Again, they argued that because people present themselves in the most favorable light, they are likely to offer the

same opportunity to front groups (Pfau et al., 2007). They based their argument on deception research from Schlenker (2003), advancing that most people realize that people want to present their very best image and as a result provide that same courtesy to other individuals as well. While it is reasonable to assume individuals are given a great deal of grace in matters of self-presentation, it is likely to be an altogether different story if a front group misleads another person in a potentially dangerous way. For example, if their tactics were discovered, the measure of grace Pfau and colleagues suggested as a potential explanation for the persuasiveness of front groups would vanish and the evaluation of that front group would suffer. It is important to keep in mind that the inoculation strategy is designed to strengthen an individual's current attitude toward an issue. Thus, Pfau and colleagues findings likely apply more readily to an audience who holds the opposite opinion as that expressed by the front group. A partisan audience might excuse a front group's deceptive tactics as a means to an end.

This negative evaluation of front group credibility is exactly what Pfau and colleagues' (2007) found. When some of the participants were made aware of the fact that they had been persuaded by front group stealth messages, the participants' ratings of the front groups' organizational credibility, citizenship, and reputation dropped significantly. Pfau and colleagues conceptualized the organizational credibility as the participants' assessment of the organization's reputation. They measured organizational credibility drawing on Dowling's (2001) conceptualization about organizational credibility such as the organizations

perceived trustworthiness, confidence, and positive word of mouth (Pfau et al., 2006). The drop in perceived trustworthiness of these organizations does not provide the support for Pfau and colleagues' initial argument that front groups would be persuasive and because individuals would give them a measure of freedom to present themselves in the most favorable light. However, the deceptiveness of front group stealth campaigns *is* likely to have a role in their effectiveness, just not in the same way proposed by Pfau et al. In particular, people are often influenced by deceptive messages because they are not good at detecting deception (Bond & DePaulo, 2006; 2008), because people have a truth-bias or "the tendency to overestimate others 'truthfulness'" (Burgoon, Blair, & Strom, 2008, p. 573), and because deceptive messages are subtly and skillfully constructed to make them appear to reflect the truth.

The second reason Pfau et al. (2007) proposed that front group stealth messages are likely to be effective because individuals are so preoccupied with their own lives they have little time or too little interest to consider public policy issues (Pfau et al., 2007). Essentially, they are not motivated to carefully consider many of the messages they encounter unless they understand how they are directly related to their day-to-day experiences. Building their arguments on the research and theorizing produced by Chaiken and colleagues' HSM (1980), Pfau and colleagues advanced because individuals are so unmotivated to carefully consider messages about public policy, they would likely employ heuristic processing. The HSM postulates two distinct routes to cognitive message processing (Chaiken,

1980). The first approach, systematic processing, is marked by careful scrutiny of the message and the second approach, the heuristic approach, is characterized by invoking simple decision rules that facilitate relatively easy assessments about the persuasive message (Chaiken, 1980; Chaiken, Liberman, & Eagly, 1989; Eagly & Chaiken, 1993; Todorov, Chaiken, & Henderson, 2002). This research will be reviewed in more detail in the next section.

Again, Pfau and colleagues did not test their message processing argument empirically. As a result, it is unclear what the role of motivation to process the messages had in both the effectiveness of the front group stealth messages and the efficacy of the inoculation treatments that were employed. Even without the direct empirical evidence of the role of motivation, it is very likely that front groups are effective because people were unmotivated to process the messages carefully or to seek additional information about front groups even when the inoculation pretreatment messages encouraged them to do so. It is likely that the participants drew on heuristic cues such as “experts can be trusted” or “the more consumer choices the better,” or perhaps the pro-social sounding names like Keep America Beautiful and Center for Consumer Freedom lead to their conclusion that “the group stands for things I believe in.”

Pfau and colleagues’ research is important because it did provide the first known empirical support for the fact that front group stealth messages are effective (Pfau et al., 2007). In addition, they discovered that inoculation was an effective strategy for conferring resistance to front group stealth messages. Their research is

an important step in understanding the influence of front groups, and given the fact these groups are likely to be well funded (Fitzpatrick & Palenchar, 2006; Sullivan, 2011) and are bent on using deceptive tactics to accomplish their political or financial goals, it is very fruitful to identify strategies to reduce their influence. Furthermore, this research provided a great argumentative and empirical foundation on which Robertson et al. (2010) built their research.

To further understand why front group stealth messages are effective and how inoculation could be used to reveal their deceptive techniques to consumers, Robertson et al. (2010) conducted a follow up study. They noted that while Pfau et al. (2007) had presented a strong argument that individuals were likely to be persuaded by stealth messages because they were unmotivated to systematically process the messages, they did not test this explanation empirically. To fill this gap Robertson et al. proposed that an individual's level of cognitive effort or the extent to which they systematically or heuristically processed the front group stealth messages would influence their assessments of a front group's authority or expertise and character, two of the dimensions that make up source credibility (McCroskey, 1966). In particular, they predicted that the more a person relied on heuristic processing, the more likely they were to evaluate the front group as credible (having strong expertise and good character) despite the low quality of their message. Conversely, they predicted that the more a person relied on systematic processing, the less likely they were to evaluate the front group as credible.

In addition, based on the existing research that had demonstrated the efficacy of inoculation to confer resistance to counterattitudinal messages (Szabo & Pfau, 2002) and the recent empirical support for the inoculation strategy presented by Pfau and colleagues (2007), Robertson et al. (2010) predicted that individuals who received an inoculation treatment would be more resistant to front group stealth messages than those in the control group. Furthermore, they predicted that the inoculation treatments would generate more anger than the control message and as a result would promote greater systematic processing and counterarguing output. Finally, Robertson and colleagues posed a research question to determine whether an inoculation treatment that focused on the tactics of one front group would confer resistance to the same front group featured in the inoculation message and to different front groups not mentioned in the inoculation treatment.

The results of their investigation revealed that as the participant's heuristic processing increases, their assessment of the front group's credibility also increased. However, contrary to their prediction, the relationship between systematic message processing and their assessments of front group credibility was negative although not significant. These findings may be a result of the unconventional employment of Novak and Hoffman's (2009) measure of message processing rather than the traditional thought listing techniques employed in message processing research. The Novak and Hoffman scale was a self-report of processing, and it may very well be inferior in terms of accuracy and reliability to the thought listing technique. Robertson and colleagues suggest that the reason for

this unexpected finding was that front groups are so skilled at the way they present themselves and their messages, that even if a person is carefully considering the quality and validity of stealth messages, they may not be adequately equipped to identify the misleading or deceptive nature of the messages. An additional possibility is that front group messages are very compelling and even factually correct in spite of the fact that their supporters have gone to great lengths to conceal their identity and their interests in the issues.

Unfortunately, while Robertson and colleagues came closer to actually looking at the extent to which the participants processed the messages, they failed to assess the different types of motivations people have for processing persuasive messages. Furthermore, rather than using the thought-listing procedure used in previous HSM experiments (Chaiken, 1980; Chaiken & Maheswaran, 1994; Maheswaran & Chaiken, 1991; Darke, Chaiken, Bohner, Einwiler, Erb & Hazlewood, 1998); they used the Task Specific Thinking Style (TSTS) (Novak & Hoffman, 2005) to evaluate the participants' level of message processing. The TSTS scale may have been a poor choice for measuring message processing because it is essentially a self-report of the extent to which the participants believed they carefully processed the message (Novak & Hoffman, 2009). Taken together, these two weaknesses of the previous study also made it very difficult for Robertson and colleagues to draw conclusions about the role of motivation and message processing in the resistance process.

In addition, Robertson and colleagues predicted that inoculation would be an effective strategy for conferring resistance to front group stealth messages. While their results revealed that compared to controls, inoculated participants reported more threat, systematic processing, anger directed toward the front-group stealth messages, and lower evaluations of front-group credibility, they found no difference between the groups on the number of counterarguments they produced nor the level of resistance to front group stealth messages. It may be that this result simply highlights a lack of efficacy to counter-argue rather than a lack of motivation to do so. Again, Robertson and colleagues suggest that a person may be adequately warned that the front groups are persuasive and deceptive, but they may not be equipped with a way to identify false or misleading statements made by these groups.

As there seems to be a general consensus that more research is needed to better understand how inoculation works and how to improve its use (Compton & Pfau, 2004; Szabo & Pfau, 2002), and Banas and Rains (2010) gave a specific call to better understand the role of motivation in the inoculation process, this investigation attempts to improve inoculation theory by fully drawing on the HSM both conceptually and procedurally. This will improve on the two studies just detailed and it will also open future directions to manipulate the participant's level of motivation to process the messages presented in inoculation experiments.

Heuristic Systematic Model of Persuasive Message Processing

The HSM was posited by Chaiken (1980) to describe the two routes of cognitive message processing, to explain how individuals cognitively process persuasive messages, and to predict the conditions in which individuals will process a message systematically, heuristically, or when both the systematic routes will be employed in the decision-making process. The HSM has inspired communication and social psychological researchers to push toward a better understanding of how the human mind sifts through myriad persuasive attempts. Moreover, because this research is designed to understand how individuals might process and respond to front groups' stealth messages, it is important to review the HSM. The HSM has been applied to inform research in marketing and consumer behavior (Darke, Freedman, & Chaiken, 1995), and political initiative endorsements (Forehand, Gastil, & Smith, 2002). Given that front groups are designed to weigh in on both consumer and political decision making, the model is well equipped to address the type of processing that likely takes place as individuals are exposed to stealth messages.

The Theoretical Postulates of the HSM

The HSM postulates two distinct routes to cognitive message processing (Chaiken, 1980). The first approach, systematic processing is marked by careful scrutiny of the message and the second approach, the heuristic approach, is characterized by invoking simple decision rules that facilitate relatively easy assessments about the persuasive message (Chaiken, 1980; Chaiken, Liberman, &

Eagly, 1989). Chaiken and her colleagues have committed considerable time and attention to quantifying the presence of two distinct routes of cognitive processing (Axson, Chaiken, & Yates, 1987; Chaiken, 1980; Chaiken, Duckworth, & Darke, 1999; Chaiken & Maheswaran, 1994). This section will discuss the systematic, heuristic, and simultaneous routes in more detail, the underlying motivational antecedents of each type of processing, and finally discuss the nature of decisions made under each type of processing.

Systematic Processing

According to Chaiken (1980), systematic processing requires a message receiver to fully examine a message in order to understand it and to determine the quality of the arguments and whether the evidence presented supports the claim of the message. The original definition was later bolstered by Eagly and Chaiken (1993) to include more detail to the extent and intensity characterized by systematic processing. Specifically, they advanced that when a person is engaged in systematic processing they actively integrate all the relevant information available in order to make the decision at hand. This definition offers a more complete explanation of the systematic processing than the original definition, which only predicted that people engage in systematic processing when they were sufficiently motivated to determine the accuracy or validity of an argument (Chaiken, 1980). Chaiken, Giner-Sorolla, and Chen (1996) later acknowledged that individuals have other motivations to process messages.

Chaiken, Giner-Sorolla, & Chen (1996) argue that beyond the motivation to be accurate in decision-making, individuals have a defense motivation and an impression motivation. In particular the “*defense motivation* is an orientation toward reinforcing important self-related beliefs, and *impression motivation* is an orientation toward holding and expressing beliefs dictated by the current interpersonal situation” (Chaiken et al., 1996, p. 554). It would seem that the threat function in inoculation treatments maps on very closely with the defense motivation because the threat makes salient the importance of maintaining an individual’s existing beliefs on a particular issue.

While Chaiken (1980) primarily focused her original conceptualization of systematic processing on the careful evaluation of the quality or validity of the arguments, she and her colleagues continued to improve this focus in later research. A further nuance of the later definition of systematic processing is the reference to *all* relevant information (Chaiken, Liberman, & Eagley, 1998). Specifically, they defined systematic processing as “a comprehensive, analytic orientation in which perceivers access and scrutinize all informational input for its relevance and importance to their judgment task, and integrate all useful information in forming their judgments” (Chaiken, Liberman, & Eagley, 1989, p. 212). Systematic processing means that the message receiver is fully engaged not only in what the current message says, but also with integrating what they already know, think, and feel about the topic in order to draw their final decision about the message (Chaiken et al., 1989; Eagly & Chaiken, 1993).

It is important to note that systematic processing does not directly account for persuasion; rather attitude and behavioral change are contingent on how well a receiver comprehends and how thoroughly the relative merits of the persuasive message are considered (Chaiken, Liberman, & Eagley, 1989). Because message understanding and elaboration mediate persuasion when an individual is systematically processing, it follows that an individual would be more focused on the arguments themselves rather than on who is presenting the arguments. Chaiken and colleagues have repeatedly found that when an individual is engaged in systematic processing they will indeed place a greater premium on what is said than who says it (Axsom, et al., 1987; Chaiken, 1980; Chaiken & Maheswaran, 1994; Maheswaran & Chaiken, 1991).

For example, Axsom et al., (1987) asked participants engaged in systematic processing about an appeal to save money by moving prisoners from jail to probation. The participants could consider the strength of the evidence presented in the message that connected the proposed change to the probable savings rather than the source, or other external cues such as an audience's favorable responses or the consensus of the audience members. By carefully attending to the message rather than source characteristics, individuals who engaged in systematic processing considered the logic of the arguments and the likelihood that the proposed change in the probation policy could help the state save money.

In a related investigation, Chaiken and Maheswaran (1994) asked participants to read some information about a telephone answering machine. Half

of the participants read the information from a high credibility source (Consumer Reports) and the other half read the information about the product from a low credibility source (a promotional pamphlet). In addition, half of the participants were motivated to systematically process the messages by explaining to them that the phone companies were considering their opinion very carefully in order to determine if they should attempt to sell the product in the local area. The other half of the participants were told that their individual evaluation of the products were unimportant because they would be combined with a large amount of other responses. These participants were also told that the telephone company was using these opinions to determine if they should sell the answering machine in a different region. Upon analyzing the participants' responses to the thought-listing prompt, the researchers concluded that highly motivated participants' attitudes about the answering machines were based on the quality of the supporting material and product information while the participants who had little motivation based their opinion about the product on the credibility of the source presenting the information.

Systematic processing is characterized by the careful consideration of all information available including message characteristics, source characteristics, and even the information an individual has about a particular topic. Moreover it is likely that systematic processing can provide the best opportunity for individuals to distinguish a front group from a legitimate grassroots organization, to identify potentially misleading information in front group stealth messages, or at least to

consider that there may be some important information the front group is not including in their messages. Individuals who are highly motivated by accuracy in their decision-making and are exposed to inoculation pretreatments emphasizing careful consideration of front group strategies are likely to engage in more systematic processing when they encounter a stealth message than individuals who are less motivated and are not exposed to the inoculation messages.

Heuristic Processing

According to Chaiken et al. (1989) “The cornerstone of heuristic processing is the idea that specific rules, schemata, or heuristics can mediate people’s attitude (or other social) judgments” (Chaiken et al., 1989, p. 216). When a message receiver uses heuristic processing he or she is less likely to consider the merits of the arguments presented and more likely to draw on easy cues or decision rules like the credibility of the source or the number of arguments presented (Chaiken, 1980). Within the HSM, the term heuristic cue is used to denote any decision-rule that is called upon to facilitate quick evaluations of a message or decision-making in a relatively simple conclusion about a persuasive message (Eagly & Chaiken, 1993; Chaiken et al., 1989). Heuristic cues are formed from an individual’s previous experiences and through the process of socialization (Chaiken et al., 1989).

Findings from HSM investigations document numerous heuristic cues that are applied during passive processing sessions that characterize heuristic processing. For example, Chaiken and colleagues (1989) contend that the heuristic cue “experts can be trusted,” can be used to evaluate source expertise, “people

generally agree with people they like,” can be called upon to evaluate the likeability of a source, “length implies strength” can be used to evaluate a long or short message (p. 216). Additional possible heuristics could be “I agree with groups that stand for my values,” or “groups that have positive sounding names, stand for something positive.” These and other heuristic cues can be used to facilitate rapid decision-making about the persuasive message without the need to consider all of the message-related details.

In the context of front group stealth messages, Pfau and colleagues (2007) suggest that one of the reasons why front groups are likely to be so successful is that many people are not very knowledgeable or interested in the issues that front groups are often involved in. As a result, it is likely that individuals would engage in the surface level consideration of stealth messages, or even more simply, thinking “with a name like ‘Keep America Beautiful’, it has to be good.” These stealth messages are designed to be misleading and persuasive, and heuristic processing may not contribute to accurate decision making about their messages. It is also likely that messages that are presented in the form of an advertisement lack the depth of information that a person would need to engage in systematic processing. As a result, individuals would need to do their own research. In most cases, a person who would take the time to do this research would be very highly motivated.

The result of heuristic processing has been documented in the Chaiken (1980) study where the sheer number of arguments and the likeability of the source

influenced the unmotivated participants' decisions about sleep habits and whether or not the school should move to a trimester system. In addition, as previously mentioned, Chaiken and Maheswaran (1994) discovered that unmotivated participants formed their attitudes about a new answering machine on the basis of the credibility of the message source. Heuristic processing was also detailed in the Axom et al., (1987) research which examined the extent to which people engaged in systematic or heuristic processing about the merits of moving prisoners to probation to save the state money. Some subjects were assigned to a condition where audience members cheered and clapped as the source presented the arguments in favor of moving prisoners from behind bars to probation, whereas others were randomly assigned to a condition where the audience members booed and showed signs of disapproval.

In these cases, the subjects who were engaged in heuristic processing likely invoked a heuristic cue such as "If other people think the message is correct, then it is probably valid" (Axom et al., 1987, p.39). Participants who were less motivated to process the message than those who were highly motivated were more likely to provide a favorable evaluation of the message when they were encountered the clapping and cheering messages (Axom et al., 1987). Furthermore, compared to highly motivated participants, less motivated participants who were exposed to negative audience feedback evaluated the message unfavorably (Axom et al., 1987). This research provides evidence that when individuals are less involved in

the decision making task, they can be more influenced by cues external to the message like group consensus than by the quality of the arguments in the messages.

Not only does the HSM describe the nature of heuristic processing, it also predicts when different heuristic cues will be employed to make quick assessments about persuasive messages. Three principles predict the likelihood that a person might draw on a heuristic cue when engaged in heuristic processing. These predictors include: availability, accessibility, and applicability (Chaiken et al., 1989; Chen & Chaiken, 1999). First, a decision rule can be employed only if the individual engaged in message assessment has it stored in their memory (Chaiken et al., 1989). Specifically, this prediction is based on the work of Higgins (1989), who argues that knowledge and attitude structures are formed as a result of a person's experiences or through the process of socialization and practical knowledge. If a person does not have some type of cognitive entry or account for a decision rule, it cannot be called upon to guide passive decision-making during the heuristic processing of a message. Second, a heuristic cue must also be readily accessible for an individual to recall and use while heuristically processing a message (Chaiken et al., 1989).

For example, if a heuristic cue like "experts can be trusted" is drawn on regularly to make decisions about persuasive messages, this heuristic may be used with greater ease than a decision rule that is only called upon in extremely rare conditions. Finally, the heuristic must be applicable to the decision at hand (Chaiken et al., 1989; Chen & Chaiken, 1999; Todorov et al., 2002). If the

heuristic cue is not relevant, then it would likely not be used as a guide in the decision making process because it will be identified as inapplicable. For example, the heuristic, “What is beautiful is good” may be both available and accessible to a person who is making a decision about supporting the front group Keep America Beautiful, however they would find this decision rule to be less useful when considering a donation to the Center for Consumer Freedom.

Simultaneous Processing

One of the central strengths of the HSM is that it extends beyond a simple bifurcation of heuristic and systematic processing to predict the conditions when both modes of processing will be engaged simultaneously. Chaiken and colleagues posit three conditions in which an individual will engage in systematic and heuristic processing simultaneously (Todorov et al., 2002). The first hypothesis, the additivity hypothesis predicts that when a person considers the relative merits of the arguments and draws upon heuristic cues and determines that they are complementary, then each type of processing can account both independently and in aggregate for the persuasive outcome (Todorov et al., 2002). An experiment conducted by Maheswaran and Chaiken (1991) found support for the additivity hypothesis. Participants were asked to evaluate a new answering machine much like the Chaiken and Maheswaran (1994) investigation. The participants were assigned to a condition in which they read favorable evaluations of what they believed to be consumer survey of the product or negative evaluations of the product. In addition, they were assigned to read either a positive evaluation of the

answering machine compared to two other answering machines or a negative evaluation reported by an independent product assessment facility (Maheswaran & Chaiken, 1991).

The results of their investigation reveal that when the participants were highly motivated to process the messages, and when both the independent product assessment and the consumer survey results matched, the participants attitudes about the answering machine were formed on the basis of both types of information. The consensus information therefore acted as a heuristic cue and the independent evaluation of the product compared to two others provided the argumentative foundation for their assessment. In this case both heuristic and systematic processing guided their evaluation of the product (Maheswaran & Chaiken, 1991).

The second hypothesis, the attenuation hypothesis, was posited to explain and predict the outcome of the likely event that an individual is motivated to systematically and heuristically process a message, but finds the hard arguments and the heuristic cues to be in conflict. In these instances, Chaiken and colleagues predict the conclusions derived from systematic processing will exert a stronger influence on the final decision about the answering machine than would heuristic cues. Thus the systematic processing will attenuate the heuristic cues (Todorov et al., 2002). For example, if a person who was made aware of front group tactics and could identify certain faults within a given stealth message, they may discount the

message even if a heuristic cue such as the pro-social sounding name of the group is also considered.

Chaiken and colleagues have also found empirical support for the attenuation hypothesis. In particular, Maheswaran and Chaiken (1991) found that when participants were unmotivated to carefully process the message, but presented with conflicting information from the consumer survey (consensus cue) and the independent product assessment company (comparative evidence about the product quality), the presence of the conflicting information lead the individuals to form their attitude about the product on the basis of the evidence presented comparing the answering machine to two other products rather than the consensus information.

The final scenario in which both heuristic and systematic processing can be seen to function simultaneously is called the bias hypothesis. The bias hypothesis predicts that when an individual encounters an event in which they cannot differentiate the meaning of the arguments provided, then they will draw more heavily on the heuristic cue to make their final decision (Todorov et al., 2002). For example, if a person is presented by a set of arguments by a highly credible or attractive source, a strategy often used by front groups, but finds the information within the arguments to be confusing or perhaps even in conflict, than they are more likely to resort to the use of a heuristic cue such as “experts can be trusted,” or “what is beautiful is good” to help them sift through the confusing information. It should also be noted that front group stealth messages do sound very compelling

so even someone who is motivated to be correct, may ultimately resort to heuristic cues.

Motivations for Message Processing

Because individuals are inundated with persuasive stimuli from all directions, a model that attempts to describe and explain how persuasive messages are processed should account for the numerous motivations an individual might have to pay close attention to a message. More specifically, one of the strengths of the HSM is its isolation of three types of motivation as key predictors of when an individual is likely to systematically process a message and when they will likely heuristically process the message (Chaiken, Giner-Sorolla, & Chen, 1996). As previously stated the HSM assumes that individuals are motivated by the desire to hold accurate attitudes or to be accurate in their decision making, they are motivated by the desire to preserve attitudes that are important to them, and they are motivated to hold attitudes that are acceptable to their peers (Chaiken et al., 1996). Chaiken et al. (1989) advance that because people are economically minded; they must be sufficiently motivated to engage in systematic processing.

Not only do Chaiken and colleagues posit three types of motivations to engage in message processing, they also specify a threshold at which point a person is no longer willing to use simple heuristic cues and instead opt for systematic processing. If there was no prediction about when a person would be more likely to process a message systematically and when they would process a message heuristically, than the HSM would only have an explanatory function. However,

Chaiken and colleagues recognized this need and to address this concern, they proposed the sufficiency principle of motivation.

According to Chaiken and colleagues (1996), the HSM grounds predictions about motivation on the basis of the sufficiency principle. They advance that the sufficiency principle represents the “tradeoff” between engaging in as little effort possible and feeling confident that the judgment was satisfactory (p. 554).

Furthermore, they specify that the sufficiency principle is comprised of a scale of confidence in decision-making. In particular, they advance that the relevant points on this scale are “the level of *actual* confidence in one’s judgments, and the level of *desired* confidence, or sufficiency threshold” (p. 554). Chaiken and colleagues argue that if an individual is capable of careful consideration of the messages, they will do so only “until the level of actual confidence is raised to the level of desired confidence, thereby closing the gap between the two” (p. 554).

Put simply, the sufficiency principle of the HSM predicts that an individual will engage in systematic processing only when they are confident that the use of heuristic cues are insufficient to draw the optimal conclusion. Not only do they have to be confident that drawing on heuristic cues will be insufficient to arrive at the optimal conclusion, they have to be personally motivated enough to desire accuracy, social acceptability, or attitude preservation. Under the tenants of the HSM, this means that a person must be sufficiently motivated to make a correct decision, to make a socially acceptable decision, or to protect a valued attitude, belief, value or behavior in order to carefully process available information.

Each type of motivation can contribute in a unique way to message processing in both the systematic and heuristic route. As a case in point, the accuracy motivation, which is the desire to make valid decisions or the “right” decision based on the information that is available, functions differently depending on which route of message processing is being engaged. For example, when a person is systematically processing a message, the accuracy motivation will propel them to sift through the message looking for the quality of the arguments, the relevance of the arguments, and the clarity of the arguments presented while a person engaging in heuristic processing may draw on a simple decision rule such as “experts can be trusted” (Chaiken, 1980; Chaiken et al., 1989). However, if the message is very short, they may be left to draw conclusions solely on the basis of what is presented. In both cases the receivers are motivated to reach the accurate conclusion, and indeed they may arrive at the same decision, yet the paths they take to make their decision about the message at hand are altogether different.

HSM Account for Stealth Message Effectiveness

This section will draw on the research and theorizing of the HSM to present possible improvements to both previous front group studies in order to present both an empirical explanation for the success of front groups based on the level of message processing and the differential levels of message processing will have in the resistance process, which were the original goals of both Pfau and colleagues (2007) and Robertson and colleagues (2010). A special feature of Chaiken’s HSM is that it predicts times when individuals draw on both heuristic and systematic

processing to engage in simultaneous processing. In particular, Chaiken and colleagues advance that when an individual is motivated to systematically process the messages, but finds the message to be confusing, ambiguous or to be contradictory, they revert to heuristic cues to process a message (Chaiken & Maheswaran, 1994). They refer to this scenario as the bias hypothesis. For example, if a person is presented by a set of arguments by a front group that seems very credible (heuristic cue) or seems to be highly committed to pro-social concerns, but finds the information within the arguments to be vague, confusing or perhaps misleading (argument quality), then they are more likely to resort to the use of a heuristic cue such as “experts can be trusted,” or “I like people or groups who like what I like,” to help them sift through the confusing information.

The HSM’s bias hypothesis (Chaiken & Maheswaran, 1994) seems to be consistent with the pattern that has emerged over the years of deception research – that humans are poor lie detectors (Bond & DePaulo, 2006, 2008). In fact, the research demonstrates that individuals are so poor at detecting deception that their chances of accurately detecting deception in an interaction is not much greater than flipping a coin (Bond & DePaulo, 2006, 2008). In the cases when deception is present, it is likely that individuals are motivated to find the truth, but that when they are presented with deceptive or misleading information, they may have to rely more heavily on heuristic cues such as the positive sounding names of the front groups.

Front group stealth messages are designed to mislead individuals to believe that there is grassroots support for a position or idea that may be quite legitimate, but would not be politically or socially expedient for a politician or corporation to hold (Beder, 1998; Fitzpatrick & Palenchar, 2002; Pfau et al., 2007; Sullivan, 2011). Stealth messages are so skillfully designed that even a person motivated by accuracy might scratch their heads and be unable to point to a passage in a front group stealth message that was patently false. This may leave some to legitimately pose the question, are front groups really deceptive if it is difficult to point out specific examples of blatant deception? To respond to this challenge, a brief discussion of the definitions of deception is in order.

Vrij (2000) advances that deception is “a successful or unsuccessful deliberate attempt, without forewarning, to create in another a belief, which the communicator considers to be untrue” (p. 6). While Vrij’s definition is not uniformly employed in all current deception research, it does address the important elements of deception including: the intention to mislead as well as a sender and receiver role in an interaction. In fact, it is quite similar to Buller and Burgoon’s (1996) conceptualization of deception as “a message knowingly transmitted by a sender to foster a false belief or conclusion by the receiver” (p. 205). Buller and Burgoon’s definition conforms nicely to Vrij’s definition because it stresses the deception is deliberate or “knowingly transmitted” and that the message is designed to mislead a recipient. The entire design of a front group, whether corporate or political, fits well within both Vrij (2000) and Buller and Burgoon’s (1996)

definition of deception. Front groups are given positive names to foster a false belief or to lead people to believe they represent a pro-social grassroots movement of concerned citizens. Furthermore, corporations and individuals knowingly create or fund these front groups in order to achieve their corporate or political goals. At the time, both George W. Bush and American war hero and veteran Senator John McCain both of whom are Republicans, condemned the Swift Boat Veterans for Truth message as deceptive and disgraceful (Factcheck.org, 2004). While front groups like Swift Boat Veterans for Truth and others are designed for the purpose of misleading others, and have the characteristic of “objective falsity” (Masip, Garrido, & Herrero, 2004, p. 147) deciphering the deceptive messages is still difficult. It may be that the content of the messages are not deceptive even though the front groups was designed to mislead the public about the source of those messages. Elliot and Culver (1992) provide an additional definition of deception that can account for this detection difficulty. Specifically, they advance that

Person A acts deceptively by withholding information only if (a) Person A intentionally withholds a proposition that he or she believes to be true and believes that withholding will lead Person B to form or maintain a false belief; and (b) Person A breaks a law, breaks a promise, cheats, or neglects a duty by withholding the information (Elliot & Culver, 1992, p. 73).

In fact, Schweitzer and Croson (1999) advance that people would prefer to use omission or withholding information as a strategy to deceive others than to use lies of commission or the generation of untruthful information. Keeping this definition of deception in mind, a review of the “Guiding Principles” published on the Keep America Beautiful website, a front group known for promoting clean-up efforts

around the United States reveals that the group emphasizes education, individual responsibility, and community networks, and volunteerism as the key factors to promoting environmental responsibility (kab.org, 2006). These positions have merit and are not on face false. The real deception is the concealment of the message source and the special interest that is protected by the creation of these groups. In this case, Elliot and Culver's (1992) definition that addresses the deceptive nature of omitted information may be an important nuance that Masip, Garrido, and Herrero (2004) requirement for "objective falsity" (p. 147) of information overlooks.

These legitimate recommendations can be misleading to the extent that they are designed to make people focus on individual and community groups rather than the responsibility of corporations to make products and packaging that are more environmentally sustainable. The organization has made a "Guide to Litter Prevention" packet available on their website "preventcigarettelitter.org." While they do report that Phillip Morris funded the research behind the prevention plan, what is missing from the report is any action the cigarette companies can take to lessen the environmental impact of cigarette litter.

To most readers, these goals would seem laudable and well warranted given the considerable amount of trash and litter produced in the United States. However, what is missing from these guiding principles is the clear attempt to guide the discussion about litter away from corporations who produce packaging, bottles, and cigarettes that account for many of the products that are ultimately

littered. It is not that there is anything factually incorrect about many of their messages; it is about what their message skillfully circumvents. Again, Elliot and Culver (1992) suggest that it is deceptive to withhold information from another people in order to avoid their responsibility. In this case, it is deceptive for industry-funded groups to create an image of care and responsibility for the environment when they leave out any responsibility that their own organization has to environmental preservation. If this mismatch of motives were made salient to readers, they would likely question the sincerity of the organization to make environmentally responsible decisions.

Returning to the bias hypothesis (Chaiken & Maheswaran, 1994), it is likely that even an individual who is motivated to hold accurate attitudes about the environment and clean-up efforts might be very influenced by Keep America Beautiful because both the name of the group and its guiding principles seem to represent positive values. They would have no choice but to draw on heuristic cues such as the positive name of the group. Even when individuals are made to be suspicious of a source, they cannot readily distinguish between truthful and deceptive messages and in fact, suspicion may make it even harder to accurately detect deception (Burgoon, Buller, Ebesu, & Rockwell, 1994).

While the majority of deception research has been conducted in the context of interpersonal communication, several factors make deception research relevant to the present investigation. First, front-group stealth messages are designed to deceive (Beder, 1998, Fitzpatrick & Palenchar, 2006; Pfau et al., 2007; Sullivan,

2011). The names of front groups are strategically selected to mislead individuals about the purpose of the front group and the sponsors of the front groups (Beder, 1998, Fitzpatrick & Palenchar, 2006; Pfau et al., 2007; Sullivan, 2011). Second, even when inoculation messages make individuals question the front groups' credibility, suspicion alone does not equip individuals to separate the fact from fiction in front group stealth message just as it does not in interpersonal contexts. Third, inoculation messages encouraged readers to "Find out about the sponsor and their true values by going on-line," yet participants were not given an opportunity to go on-line to track down the truth about the front-groups. Ultimately, while their suspicion was peaked they were still no better prepared to identify false and misleading statements than before. However, inoculation messages can be designed differently.

This research intends to redesign the previous inoculation pretreatment messages used in both previous front group inoculation studies to more clearly highlight front group strategies (Pfau et al., 2007; Robertson et al., 2010). The highlighted strategies will focus on responsibility, argument quality, and group names. Because the new inoculation message will focus on responsibility, arguments, and names, these inoculation messages will be called RAN messages. First, the new inoculation message will inform participants that front groups generally stress individual rather than corporate responsibility for environmental clean-up or protection efforts. Second, the RAN inoculation message will prompt readers to carefully consider the quality of the arguments presented by front groups.

For example, the RAN inoculation treatment will direct readers to look for vague or ambiguous arguments or information in the front group messages. As a further example, the front group National Wetlands Coalition makes vague references to positive sounding activities, but it is completely unclear what these efforts are. In addition, the RAN inoculation messages will prompt individuals to pay careful attention to information that might be omitted from a stealth message that would be deceptive such as who might be funding the group or who might benefit from the efforts of the group. Finally, the RAN inoculation message will encourage participants to carefully consider whether the name of the group is a true representation of what the group stands for. When compared to the standard inoculation messages used previously, the RAN inoculation treatment should provide individuals with a greater opportunity to identify vague or potentially misleading information and ultimately resist front group stealth messages.

Both the standard inoculation messages and the new RAN inoculation messages directly question the credibility of front groups. In addition, the Robertson et al. (2010) research demonstrated that inoculated individuals assessed the credibility of front groups as lower than those who read control messages. Therefore it is predicted:

H₂: There is a significant difference in the perceived level of front group credibility such that individuals in the RAN inoculation condition report the lowest level of front group credibility, followed by individuals in the standard inoculation, followed by individuals in the control condition.

H₃: There is a significant difference in the perceived level of front group deceptiveness such that individuals in the control condition report the lowest number of vague or misleading strategies, followed by individuals in the standard condition, followed by individuals in the RAN inoculation condition.

To date, researchers have committed considerable attention to the factors that maximize the efficacy of inoculation research, however little research has explored the possible unanticipated consequences of inoculation. It is possible that inoculation may contribute to resistance to front groups but given that inoculation message may elevate their suspicions about front groups, these suspicions may not be limited to front groups by may lead to the inaccurate classification of legitimate grass roots, political, or religious groups as front groups. Therefore the following research question is posed:

RQ₁: Do inoculation treatments lead to the incorrect evaluation of grassroots groups as front groups?

The bias hypothesis states that even if a person's sufficiency threshold is met and they are motivated to carefully consider the quality of the arguments presented in a message, if they are unable to thoughtfully sort through a set of confusing information, then they are likely to revert back to heuristics in order to make their assessment about the message (Chaiken & Maheswaran, 1994). However, the RAN inoculation messages should help a motivated individual to carefully process even vague arguments because they explain vagueness or

omission as a strategy front groups use. Because individuals assigned to the RAN condition should be more familiar with front group strategies, they should also engage in more systematic processing than the standard inoculation group or the control groups.

In addition, individuals assigned to the RAN conditions will receive more information to help prepare them to resist the later attack messages than the standard inoculation group or the control group. Johnson and Eagly (1989) note that “messages that elicit unfavorable thinking, increased message-relevant thinking should decrease persuasion” (p. 293). The participants in the RAN inoculation conditions are likely to have a greater motivation to carefully consider the merits of the front groups’ arguments. Moreover, an investigation conducted by Walther, Van Der Heide, Tong, Carr, and Atkin (2010) determined that individuals who were motivated by disaffinity goals, engaged in more online information seeking about the discussion issue than individuals who were motivated by affinity goals. In particular when participants were experimentally prompted to distance him or herself from a conversational partner were given an opportunity to search online for information to prepare for an impending interaction, they searched online for information about the partner’s preferences.

In this case, individuals who are assigned to inoculation conditions will be exposed to negative materials about front groups. This negative information about the front groups should generate disaffinity toward front groups. Chaiken and colleagues (1996) suggest that when an individual’s actual confidence is less than

their desired confidence, they are motivated to systematically process information in order to become more confident in their judgments (Chaiken et al., 1996). In addition, the HSM would predict that because motivated individuals are more likely to systematically process both inoculation message and attack messages than unmotivated people, they are also more likely to consider the merits of the arguments themselves rather than source characteristics. Therefore, it is predicted:

H₄: Compared to controls, individuals who receive the standard inoculation will engage in significantly more heuristic processing to form their attitudes about front groups than individuals who receive RAN inoculation messages.

H₅: Individuals who receive RAN inoculation messages will report greater levels of threat, anger, counterarguing and resistance to front group stealth messages than individuals who receive standard inoculation messages or control messages.

H₆: Individuals in the RAN inoculation condition engage in significantly more relevant on-line information seeking behaviors than individuals in the standard inoculation condition, who in turn engage in significantly more relevant on-line information seeking than individuals in the control condition.

H₇: Individuals whose actual confidence in their ability to identify front groups is less than their desired confidence in their ability to identify front groups and resist front group stealth messages will

engage in more systematic processing of the experimental messages, engage in more on-line information seeking behaviors and produce more counterarguing output than unmotivated individuals.

Motivational Boosters

Resistance scholars credit threat as a motivational force behind the protection of ideas (Compton & Pfau, 2004). However, Banas and Rains (2010) did not find a positive relationship between the amount of threat reported by participants and the level of resistance to counterattitudinal persuasion. Moreover, they suggest that research explore the role of additional types of motivation in the resistance process. The role of motivation in inoculation has been explored in other ways. In particular, many scholars have investigated the role of involvement (Pfau, Banas, Semmler, Deatrick, Lane, Mason et al., 2010; Pfau, Tusing, Koerner, Lee, Goldbold, Penaloza et al., 1997; Pfau, Tusing, Lee, Godbold, Koerner, Penaloza et al., 1997), which Johnson and Eagly (1989) advance is “a motivational variable that is presumed to affect persuasion because it instigates more thorough processing of persuasive messages” (p. 290). However, Banas and Rains (2010) report in their meta-analytic review that the link between involvement and resistance is questionable.

One possible explanation for the lack of connection between the motivational variable of involvement to resistance, is that according to Insko (1967) motivational inductions are short lived. To address the potential decline of motivation, previous researchers have attempted to reinforce the participants’

existing beliefs with an additional reinforcing message administered between the inoculation message and the attack message called a booster message (Pfau, Compton, Parker, An, Wittenberg, Ferguson et al., 2006; Pfau & Van Bocken, 1994; Pfau, Van Bocken, & Kang, 1992).

While the idea of the booster in inoculation theory is reasonable, extant research on the efficacy of booster sessions in inoculation experiments to bolster the level of resistance to counterattitudinal persuasion is mixed. For example, Pfau and colleagues conducted an experiment to generate adolescent resistance to pressure to use tobacco products (Pfau, Van Bocken, 1994; Pfau, Van Bockern, & Kang, 1992). In both studies the researcher noted that while the inoculation strategy was effective in producing resistance to smoking among adolescents with low self-esteem, no additional levels of resistance were observed among participants who were exposed to the booster messages.

Alternatively, Pfau, Compton, Parker, Wittenberg, Ferguson, Horton, and Malyshev (2006) found that individuals who had received a booster message in addition to an inoculation treatment produced more counterarguments over time than did individuals who received only an inoculation message. There was one exception to this finding. Participants who received an inoculation message that contained a preview of counterattitudinal attacks that were different from the arguments that came in the later attacks also produced a higher level of resistance than individuals who received an inoculation message that previewed identical

counterattitudinal attacks that they would later be exposed to in the attack messages.

In a somewhat different approach to studying the efficacy of a booster, Ivanov, Pfau, and Parker (2009) suggested that the attack message itself would serve as a motivational booster that should lead to the protection of a desired attitude. They reasoned that prior to an attack an individual might lack the motivation to engage in attitude protection until they actually encounter an attack on their attitudes. While Ivanov and colleagues did not find support for a resistance boosting effect of an attack message, their move to look at a booster in a new light is important. In particular, as stated previously, the exposure to additional information to support an existing belief may not provide any motivation of the individual to protect their existing attitude using this booster session material. It may be that part of the mixed results in the booster session inoculation research is that the content of the booster sessions is what potentially diminished their efficacy.

Rather than to simply provide additional attitude supporting information, it is likely that if the booster session was a simple motivational induction that the participants would be more careful both to process the attack messages they would later encounter and they would also be motivated to protect their attitudes from the later attack. Again if threat is the motivational catalyst behind resistance to counterattitudinal attacks, and motivational inductions are reduced over time (Insko, 1967), then perhaps all that is needed in a booster is an additional motivational induction. Therefore it is predicted,

H₈: There is an interaction effect between experimental condition and the motivational booster such that: Individual who receive the RAN inoculation message plus a motivational booster will report significantly less confidence in their ability to identify front groups than their desired confidence than any other condition.

H₉: There is an interaction effect between experimental condition and the motivational booster such that: Individuals in the RAN condition and the booster condition will report significantly more resistance to counterattitudinal persuasion than any other cell.

Chapter 3: Methods

This investigation was designed to better understand why front group stealth messages are effective and how to bolster the efficacy of inoculation treatments so that they consistently confer resistance to deceptive stealth messages. To this end, this research completed minor revisions to the inoculation messages used in previous front group experiments (Pfau, et al., 2006; Robertson et al., 2010) and tested their efficacy compared to a newly designed inoculation RAN inoculation messages based on the research of the HSM (Chaiken, 1980).

This experimental comparison was designed to determine if participants engage in differential levels of message processing, seek additional on-line information about front-groups, have differential ability to identify false or misleading information in front group stealth messages, and resistance to front group stealth messages. Furthermore, this research explored whether the addition of a motivational booster presented immediately prior to the front group attack message would lead participants to systematically process front group stealth messages, identify misleading information, and confer greater resistance to front group stealth messages than individuals who did not receive the motivational booster.

Participants

Participants were recruited from the research pool in the Department of Communication at the University of Oklahoma. A recruitment advertisement was posted on the research board in Burton Hall and on the Communication Department

research website. The researcher reported the mean time it took for the participants to complete each phase of the study. A total of 415 participants enrolled in Phase I of the study. A total of 250 participants completed Phase II, which represents a retention rate of 60 percent. A total of 226 participants completed all three phases of the study representing a retention rate of 96 percent between Phase II and Phase III. Participants were 35.4 percent male and 63.8 percent female. When asked to specify their race, 76 percent indicated they were Caucasian, 5.6 percent reported they were African American, 3.6 percent indicated they were Hispanic, .8 percent indicated they were Asian, .4 percent indicated they were Native American, and 2.8 percent indicated they were Pacific Islander.

The demographic statistics reported in the Fall 2012 University of Oklahoma Norman Campus Enrollment Analysis report Table 1A demonstrate that the study sample generally reflects the Norman campus student population. In particular, 61.7 percent of the Norman Campus population are white, 4.4 percent are Native American, 5.1 percent are Asian, 5.0 percent are black, 6.7 percent are Hispanic, and .2 percent are Pacific Islander. The main differences were with Asian and Native American students. It may be that there systematic differences in the Communication research pool during this time that can explain the differences.

Procedures

The study was conducted in three phases. During Phase I, participants were instructed to complete a short on-line survey designed to assess the participants' initial attitudes toward several issues that were used in previous front group

inoculation studies (Pfau et al., 2007; Robertson et al., 2010). These issues included wetlands conservation, regulations on business to reduce the amount of litter their products produce, and mandatory recycling legislation. Pfau and colleagues employed these issues because they are at the heart of stealth campaigns launched by “active” and established front groups (Pfau et al., 2007, p. 6). In addition to assessing attitudes about the above issues, participants’ level of involvement was measured. Limited demographic information was collected including: participant sex, year in school, age, and race. Finally, participants were asked to enter their email address so they could be contacted to participate in Phase II and Phase III of the study. After the participants completed Phase I, they were emailed and asked to sign up for an appointment to complete Phase II of the study. There was approximately one week between the time the participants complete Phase I of the study and began Phase II.

Prior to Phase II, participants were assigned to either a control condition or to one of the inoculation conditions on an issue they reported holding a favorable attitude. At the beginning of Phase II participants arrived at the Message Analysis and Processing Lab (MAPL) in Burton Hall. They were thanked for coming and were signed-in, asked to re-read the informed consent form and sign if they wanted to participate. They were also given a copy of the University of Oklahoma Interim Internet Policy, which the Institutional Review Board suggested would be beneficial to distribute to students because their internet searching behaviors would be recorded. While the participants read the consent form and the University of

Oklahoma Interim Internet Policy, the researcher or a lab assistant set up their research computer station. Without the participant's knowledge the Camtasia studio screen capturing software was opened while they read the preliminary materials. After each participant read and signed the consent form and looked over the internet policy, they were instructed to carefully read and respond accurately respond to all the study materials. The instructions were as follows:

Before you begin this part of the study you should know that it is important that you carefully read and think about the information you are about to receive. After you are finished here today, you will be asked about how you evaluated the information and what lead you to evaluate the message the way you did. Your careful and candid responses are very important to the results of this study. The computer will prompt you through this phase of the study, but if you have any questions, I will assist you. Please read the messages on the computer screen and respond in the way that best represents your position. When you are finished you will be asked about your decision-making.

Next, they were prompted to read a standard inoculation message, a RAN inoculation message, or a control message. After the participants read the inoculation or control message, the dependent variables of threat, counterarguing output, message processing, and their time spent searching for additional on-line information about front-groups was assessed. After the participants completed Phase II, they were asked to carefully read a partial debriefing form, which instructed them their on-line search had been captured with Camtasia software. They were given the opportunity to completely withdraw from the study, include their survey responses only, or to give their permission for the use of their survey and Camtasia recorded data. Of the 250 participants who completed Phase II, only

nine requested their Camtasia data not be included in the study. None of the participants requested withdrawing from the study after reading the partial debrief in Phase II. The researcher or lab assistant then asked the participants several questions about what they read and what they thought about what they read. Finally, they were thanked and instructed that they would receive an email with the link to Phase III of the study.

Prior to Phase III, participants were randomly assigned to read a motivational booster immediately preceding the counterattitudinal attack message or to read only the counterattitudinal attack message. The researcher then sent each participant an email which included a link to the Phase III survey. The mean delay between Phase II and Phase III was 5.38 days with a standard deviation of 3.49.

During Phase III, participant's desired level of confidence in identifying a front group and their actual confidence in their ability to identify a front group were assessed. Next, participants were asked to read a front-group stealth message, which attacks their position on the issue of protecting wetlands, or mandatory recycling and litter regulation. Participants were also asked to complete posttest measures, which reassessed their attitudes toward and involvement with the issues.

In addition, the posttest measures assessed participants' level of accuracy motivation, evaluation of front-group source credibility, and message processing. Participants were then asked to determine if the message source is a front group and how confident they were that the source was a front group. Participants were then asked to determine whether the stealth message was deceptive or not and to

rate the extent to which they thought the message was deceptive. If they indicated that they believed the messages to be false, they were asked to isolate false or misleading statements within the stealth message. Finally, to ensure that the inoculation messages do not have the unintended effect of making individuals suspicious of all grass roots organizations, participants were asked to determine if three additional groups are front groups. All participants who completed Phase III were debriefed and thanked for their participation. Of the 226 people who completed Phase III, only 4 asked that their data be excluded from the analysis.

Message Construction

Inoculation Messages

Two types of inoculation messages were employed (Please see Appendix A for the standard inoculation messages, the RAN inoculation messages, and the control message). First, the standard inoculation messages used in the two previous front group studies (Pfau et al., 2007; Robertson et al., 2010) were employed to forewarn participants of either Keep America Beautiful or the National Wetlands Coalition stealth messages. Again, Pfau and colleagues justify the selection of these groups because they were active and operating front groups at the time of the initial study (Pfau et al., 2007).

Next, the standard inoculation messages were adapted to create the RAN inoculation messages. The RAN inoculation message adaptations included a primary focus on front group strategies such as how front groups encourage individual responsibility while saying nothing about or even trying to conceal what

corporations can do to help accomplish the stated environmental goals. In addition the RAN inoculation messages highlighted the poor argument quality or vagueness of the arguments presented by front groups. Participants were also encouraged to carefully consider what information was omitted from stealth messages, and that front groups are skilled at the use of subtle tactics that if not carefully scrutinized can be very influential. Both the standard and the RAN inoculation messages were designed to generate threat by warning the participants that it was likely that they would encounter front groups messages and they were likely to be so persuasive that they could potential lead them to change their attitudes about the issues (Pfau et al., 2007).

Motivational Booster

The booster was designed to motivate participants to carefully process the persuasive front group attack messages (Please See Appendix C: Motivational Booster). The motivational booster attempted to motivate participants in two ways. First, the message informed the participants that the researcher will personally ask them questions after they complete the on-line survey to understand their decision-making processes. In addition, the motivational booster informed participants that many of their peers make incorrect decisions and prompts them to be very careful to make correct decisions and employers are looking for sound decision-makers. The motivational booster is not specifically related to front-group messages because previous research demonstrates that booster sessions that simply reinforce

an existing belief are generally not effective (Pfau, Van Bocken, 1994; Pfau, Van Bockern, & Kang, 1992).

Front Group Stealth Attack Messages

The stealth messages used by Pfau and colleagues (2007) were adapted to resemble public relations releases from the National Wetlands Coalition (NWC) and Keep America Beautiful (KAB) (Please see Appendix B: Attack Messages). NWC is a front-group supported by development companies, gas and oil companies, and mining companies (Environmental Working Group, 2007). The NWC message suggested that they were in agreement that wetlands needed to be preserved, but that legislation might be too strong and inflexible of a response. Because the NWC might seem very balanced in their approach, they will likely be very persuasive even to someone who is in favor of environmental conservation. The previous front group studies found these messages to be persuasive (Pfau et al., 2007; Robertson et al., 2010).

Alternatively, Keep America Beautiful is an organization that outwardly promotes clean-up projects while simultaneously shielding companies who would be negatively affected by cigarette litter regulations (Lamb, 2001). The Keep America Beautiful message stresses the need for individual responsibility and community clean-up efforts rather than unnecessary government interference. Again, the previous studies have found this message to be persuasive. Please see Appendix B for Front-group stealth attack messages.

Dependent Measures

Attitudes Toward Issues

The participant's attitudes toward wetlands preservation as well as litter and recycling regulations was measured by employing the Burgoon, Cohen, Miller, and Montgomery (1978) attitude measure, a six item semantic differential scale used in both previous front-group studies and produced highly reliable results (Pfau et al., 2007; Robertson et al., 2010). The response options ranged from 1-7. The reliability of these items was analyzed using Cronbach's alpha coefficient. The reliability of the attitude measure was very good with an alpha of .94.

Involvement

This investigation employed six items from the Personal Involvement Inventory (PII) (Zaichkowsky, 1985) which were used to assess participant involvement on the issue of wetlands preservation and mandatory litter and recycling regulation. The PII is a 7-point bipolar adjective scale used in both front-group studies (Pfau et al., 2007; Robertson et al., 2010). For the mandatory recycling legislation the item appeared as follows: "How important is the issue of national bottle and can recycling legislation." The measure will include the following: unimportant-important, of no concern-of much concern, means nothing-means a lot, doesn't matter-matters to me, insignificant-significant, and irrelevant-relevant. The reliability of these items was analyzed using Cronbach's alpha coefficient. The reliability of the involvement measure was also very good with an alpha of .94.

Threat

In order to assess participants' perceived threat that they will encounter front groups that is so persuasive that may change their mind about the issues in question, this investigation used the five bipolar adjective pairs employed in previous inoculation studies (Compton & Pfau, 2004; Pfau et al., 2007) to assess threat. The scale items included: safe-dangerous, not harmful-harmful, nonthreatening-threatening, unthreatening-intimidating, and not risky-risky. The reliability of these items was analyzed using Cronbach's alpha coefficient. The reliability of the threat measure was very good with an alpha of .94.

Anger

In order to assess participants' level of anger toward front groups for using stealth messages designed to deceive them, three items from Dillard, Plotnick, Godbold, Freimuth, and Edgar's (1996) anger scale were used. The responses were assessed on a 7-point scale. Participants who report higher scores indicated stronger feelings of anger. Items include: I feel angry that a front group will try to deceive me; I feel annoyed that a front group will try to deceive me; and I feel aggravated that a front group will try to deceive me. The reliability of these items was analyzed using Cronbach's alpha coefficient. The reliability of the anger measure was good with an alpha of .90.

Counterarguing

In order to assess counterarguing, a three-step process employed by Pfau et al., (2007) was employed. First, participants were asked to identify possible

arguments that may be contrary to their attitudes about either limiting the development of wetlands or litter regulations. Second, after identifying the possible counterattitudinal attacks, participants were instructed to think of a response to each attack. Third, participants were asked to assess the quality of both the arguments and the counterarguments they produced using a 7-point rating system with 7 being a very strong argument and 1 being a very weak argument.

Following the procedure of Pfau and colleagues (2007), counterarguing output was computed by first multiplying the total number of challenging arguments by the average quality rating of their arguments and subtracting this score by the product of the total number of responding arguments multiplied by the argument quality. The overall mean counterarguing output was 3.34 with a standard deviation of 8.66.

Message Processing

Message processing was assessed both in Phase II and in Phase III of the experiment. In order to assess message processing, a thought listing procedure used by Chaiken (1980) was used. In particular, participants were given three minutes to write down any thoughts they may have about the inoculation message and the attack messages they read. The participants' responses to a three-minute timed thought-listing activity in both Phase II and Phase III were coded to assess message processing. Two trained coders evaluated 20% of the participants' responses to a three-minute timed thought-listing activity for Phase II using a process similar to Chaiken's (1980) analysis of message processing.

The responses were coded into systematic thoughts, heuristic thoughts, or unrelated thoughts. In particular, participants' who listed thoughts and feelings about the message such as remarks about the quality of arguments and front group tactics were coded as systematic. For example, "I think this organization tries to deceive people by presenting positive messages and making them look like good things when in fact they simply started this organization to put the blame on everyone else." Alternatively, participants whose comments were about the source of the message of the information were coded as heuristically processing. For example "The National Wetlands Coalition is such a joke." Finally, comments such as "I also feel like I have been waiting on this screen for longer than three minutes..." were coded as unrelated thoughts.

Percent agreement scores and a Scott's Pi test were calculated using ReCall to determine intercoder reliability (Freelon, 2010). Of the 61 participants' responses coded for Phase II, the coders reached percent agreement scores ranging from 45.45 percent to 100 percent. The mean agreement score was 90.15 percent indicating a strong overall percent agreement between the coders. The Scott's Pi scores for the Phase II coding ranged from 6 to 100 percent. The mean Scott's Pi score was .83 indicating acceptable agreement between the coders. Of the 58 participant's responses from Phase III, the coders reached percent agreement scores ranging from 62.5 percent to 100. While 62.5 percent was the lowest score, the mean percent agreement score was 95.04 percent demonstrating strong agreement between the two coders. In addition the researcher and the second coder met

several times to resolve coding disagreements. The Scott's Pi scores for the 58 participant's responses ranged from .38 to 1. Again, while .38 was the lowest agreement score, the mean Scott's Pi score was .91 also demonstrating strong agreement between coders, which was also improved with several meetings to resolve coding disagreements.

On-line Information-seeking

During Phase II participants were prompted to conduct a 10 minute timed on-line search to look for additional information about the experimental or control messages. A Google search page was open behind the survey page on each of the research stations for ease of use. Unbeknownst to the participants, Camtasia software was installed on each research station and captured their on-line searches in a video recording of the computer screen. Camtasia software was used effectively in a previous information-seeking experiment (Walther, Heide, Tong, Carr, & Atkin, 2010).

Two trained coders evaluated 20 percent of the participants' recordings. In particular, the coders examined each search to determine the relevance of the search. For example, "how to stop front groups such as Keep America Beautiful" was coded as a relevant search, while "I'm feeling trendy" or a Facebook session were coded as irrelevant searches. Percent agreement scores and a Scott's Pi test were calculated using ReCall to determine intercoder reliability (Freelon, 2010). Of the 48 participants' search, the coders reached percent agreement scores ranging from 73.33 to 100 percent. The mean agreement score was 92.78 percent

indicating a strong overall percent agreement between the coders. The Scott's Pi scores for the Phase II coding ranged from -.07 to 1. The mean Scott's Pi score was .81 indicating acceptable agreement between the coders and differences were resolved with discussion.

Accuracy Motivation

To measure accuracy motivation, three items were employed. These 7-point Likert-type items included: To what extent is it important to you to accurately identify a front group?; To what extent is it relevant to you to know if a message you hear or read is from a front group?; and to what extent does it matter to you that you are able to identify front groups when you encounter them? The reliability of these items was analyzed using Cronbach's alpha coefficient. The reliability of these items was good with an alpha of .91.

Sufficiency Principle

In order to assess participant's motivation to systematically process the experimental messages, desired confidence and actual confidence (Maheswaran & Chaiken, 1991) were assessed. First, a single 7-point item adapted from Maheswaran and Chaiken (1991) were employed to assess participants' desired confidence that they would not be influenced by front group stealth messages. A score of one represents a very low desire for confidence while a score of seven represents a strong desire for confidence. Second, a single item was employed to assess the participants' actual confidence that they would not be influenced by front group stealth messages. A score of one represents a very weak actual confidence

while a score of seven represents very strong actual confidence. A sufficiency composite score was then calculated by subtracting actual confidence from desired confidence. Participants who report a strong desired confidence but a low actual confidence demand high sufficiency, while participants who report a weak desire for confidence and high actual confidence should demand low sufficiency and little motivation for accuracy (Maheswaran & Chaiken, 1991).

Front Group Source Credibility

In order to assess the credibility of the message sources, six items from McCroskey's (1966) credibility scale was used. Example items from the authoritativeness scale include: "reliable/unreliable," "informed/uninformed," and "qualified/unqualified" (p. 72). The reliability of this scale was good with an alpha of .82. In order to assess the character of the message source, six items from McCroskey's (1966) character scale were employed. Example items include: "honest/dishonest," "pleasant/unpleasant," and "friendly/unfriendly." The reliability of all of these scales were analyzed using Cronbach's alpha coefficient. The reliability of these items were good with an alpha of .89. Finally, in order to assess the message source's perceived caring, nine items from Teven and McCroskey's (1997) ethos scale were used (See Teven & McCroskey, 1996, p. 4). Items were adapted from Teven and McCroskey caring scales. Example items for Keep America Beautiful are: Keep America Beautiful cares about me/doesn't care about me; Keep America Beautiful has my interests at heart/doesn't have my interest at heart; Keep America Beautiful is focused only on themselves and the

companies they serve/not only focused on themselves and the companies they serve; Keep America Beautiful is unconcerned with me/concerned with me; Keep America Beautiful is insensitive/sensitive; Keep America Beautiful is empathetic/apathetic; Keep America Beautiful is understanding/not understanding; Keep America Beautiful is unresponsive/responsive; Keep America Beautiful understands how I feel/doesn't understand how I feel; Keep America Beautiful doesn't understand how I think/understands how I think. These items were adapted in the same format for the National Wetlands Coalition. All of the items described above were presented as five-point semantic differential scales. The reliability of these items was good with an alpha of .87.

Accuracy in Judging a Front Group

After participants read the front group stealth message in Phase III they were tested on their ability to identify the source of the counterattitudinal attack message as front group. The item was presented as follows: "The groups responsible for the message I just read is a front group" (yes or no). 71.2 percent of the respondents identified the source of the counterattitudinal attack message as a front group, while 19.2 percent indicated the source was not a front group. In addition, participants were asked to specify how confident they are in their classification of the message source. The confidence scale was 1-100 with a score of one meaning that the participant is not at all confident in their classification and a score of 100 meaning they are completely confident that that they have accurately classified the message sources as either being a front group or not (Lin, 2005).

Identification of False Statements

In order to assess the ability of participants to identify false or misleading statements within the front-group stealth messages, participants were asked to assess the truthfulness of the stealth message on a scale of one to ten ($Mean_{truthfulness} = 3.87, SD = 1.42$). If they indicated anything other than a completely honest assessment, participants were asked indicate what portions of the attack message they believed to be a clue that the source was a front group and why that part of the message leads them to believe they were a front group. The mean number of clues isolated by the participants was 4.05 with a standard deviation of 3.36.

Resistance

In order to assess resistance, the researcher examined if there were significant differences in attitudes during Phase III between the standard inoculation conditions, RAN inoculation conditions, and control conditions. Participants who received the RAN inoculation messages should have the highest attitude scores, followed by those assigned to the standard inoculation group, and participants in the control condition. In order to calculate resistance, time two attitude was subtracted from time three attitude. This procedure was recently employed by Miller, Ivanov, Sims, Compton, Harrison et al., (2013). This procedure calculates attitude change between Phase I to Phase III. Those in the inoculation conditions should have less attitude change than those in the control condition.

Unintended Inoculation Effects

In order to determine if the inoculation messages make participants suspicious of other organizations, the participants will be given the description of three additional groups including the Family Research Council, the Sierra Club, and the Center for Consumer Freedom. The descriptions that participants were given to read about these organizations were taken directly from their organizational websites (Center for Consumer Freedom; 1997; Family Research Council, 2012; Sierra Club, 2012). The first two groups are legitimate interest groups while the third is a front group. After participants read the description for each group they were tested on their ability to identify the source accurately. For example “The Family Research Council is a front group” (yes or no). In addition, participants were asked to specify how confident they were in their classification of the message source on a scale of 1-100 with a score of one meaning that the participant is not at all confident in their classification and a score of 100 meaning they are completely confident that that they have made the correct classification.

Chapter 4: Results

This investigation explored the possible reasons why front group stealth messages are effective and how to bolster the efficacy of inoculation treatments so they consistently confer resistance to deceptive stealth messages. Chapter Four presents the data cleaning, the manipulations check, and the results of the hypothesis testing.

An examination of the counterarguing variable revealed that at least one of the participants likely held attitudes about recycling or conservation that are inconsistent with the population of interest. Therefore the single participant was excluded from the analysis because the content of their counterarguments were contrary to the attitude they reported during the Phase I survey. Perhaps they were unclear about their opinions during the Phase I measurement or they misunderstood the counterarguing activity, but either way their reported attitudes were opposite of their counterarguments and thus their counterarguing score was eliminated. The following analyses began by first looking at potential differences between the RAN and standard inoculation groups. If there are no differences between those groups on the level of accuracy and confidence a further analysis was conducted to determine if collapsing both the RAN and standard inoculation conditions into a single treatment condition would reveal any differences than individuals in the control groups. Table 1 presents the correlation coefficients between the main dependent variables.

Table 1

Table 1. Correlation Coefficients for Main Dependent Variables													
Dependent Variables	THR	CAO	ANG	EXP	CHAR	CAR	CLU	RS	2P	3P	SFC	AM	AC
Threat (THR)	1.00	.08	*.26	-.13	*.29	*.22	*.20	.01	.11	-.02	.05	*.18	-.04
Counterarguing Output (CAO)		1.00	.03	.05	-.07	-.12	.04	-.11	.02	*.15	.03	.03	.06
Phase II Anger (ANG)			1.00	*.17	*.34	*.24	.09	-.01	.03	.03	.09	*.30	.10
Expertise (EXP)				1.00	*.70	*.57	*.25	-.01	-.05	.08	-.03	-.05	.04
Character (CHAR)					1.00	*.78	*.30	.08	-.06	.04	-.11	*.23	-.03
Cares (CAR)						1.00	*.30	.01	-.012	-.08	-.05	*.18	.04
Clues (CLU)							1.00	.06	.09	.01	.05	.10	-.08
Relevant Searches (RS)								1.00	-.09	.04	.13	-.06	-.16
Phase 2 Processing (2P)									1.00	.07	.02	.10	.07
Phase 3 Processing (3P)										1.00	-.03	-.02	.04
Sufficiency (SFC)											1.00	*.18	-.03
Accuracy Motivation (AM)												1.00	*.19
Attitude Change (AC)													1.00

*Significant correlations (p<.05)

Manipulation Check

Threat and counterarguing output are considered to be the foundational elements of inoculation experimental treatments (Pfau et al., 2007). More recently Ivanov et al. (2011) added anger as an additional central motivational variable. Therefore MANOVA was performed on threat, anger, and counterarguing output for the manipulation check. The independent variable was a combination of both the RAN and the standard inoculation treatment to determine if the treatments had the theoretically predicted influence on threat and counterarguing. Because this study is somewhat exploratory in nature because it has employed new manipulations to inoculation theory in the form of the RAN messages, Rosenthal, Rosnow, and Rubin's (2000) recommendation to report the actual significance level even if it is greater than .05 will be employed for interpreting the results. Rosenthal and colleagues advance that the "sharp line between 'significant' and 'non-significant'" findings are without warrant and call for the reporting of the exact p value because significance "varies continuously between extremes" (p. 5). Therefore, in the present study all p values will be reported and those less than .10 will be interpreted as significant.

With Wilks' Lambda as the criteria, the overall model was significant $F(3, 159)=2.97, p = .03, \text{partial } \eta^2=.05$. The results reveal as expected that individuals in the treatment conditions generate significantly more counterarguments $F(1, 161)=3.04, p = .08, \eta^2=.02$ and anger $F(1, 161)=5.29, p = .02, \eta^2=.03$ than individuals in the control conditions (see Table 2 for mean comparisons). There

were no significant differences between the inoculation groups and the control group on the level of threat $F(1, 161)=2.15, p = .14, \eta^2=.01$, however, the means were in the predicted direction.

Table 2

Table 2. Mean Comparisons for Inoculation Manipulation Check						
Experimental Condition						
	Inoculation			Control		
Dependent Measures	<i>M</i>	(<i>SD</i>)	<i>n</i>	<i>M</i>	(<i>SD</i>)	<i>n</i>
Threat	3.72	1.51	123	3.30	1.33	40
Anger	**5.30	1.36	123	4.73	1.31	40
Counterarguing Output	*4.37	9.14	123	1.51	8.66	40
** Means are significantly higher than the control condition ($p= .02$).						
* Means are significant higher than the control condition ($p= .08$).						

Hypothesis Testing

Hypothesis One

Hypothesis one predicted that inoculated individuals report more threat, generate more counterargument, and are more resistant to counterattitudinal persuasion than controls. In order to test hypothesis one, a MANOVA was performed on the dependent variables threat, counterarguing output, and resistance to counterattitudinal persuasion (attitude change between Phase I and Phase III). The independent variable was inoculation (inoculation, control).

With Wilks' Lambda as the criteria, the overall model was not significant $F(3, 144)=1.96, p=.12, \eta^2=.04$. However, an examination of the between subject results revealed a significant difference in the level of threat between individuals in the inoculation combined inoculation condition and those in the control condition $F(1, 146)=3.11, p=.08, \eta^2=.02$. While this finding is different than what was revealed by the manipulation check, it is likely that the list wise deletion function within SPSS eliminated participants in the present analysis because unlike the manipulation check, this analysis spanned Phase II and Phase III of the study. As a result, if there were any people who completed Phase II but not Phase III, their data would have been excluded.

Individuals in the inoculation condition generate significantly more counterarguments than controls $F(1,46)=2.96, p=.09, \eta^2 = .02$. Finally, there is no evidence that inoculated individuals report less attitude change after exposure to counterattitudinal persuasion (resistance) than controls $F(1,146)=.17, p=.68, \eta^2$

<.01 (see Table 3 for mean comparisons), although the means were in the predicted direction. Therefore, hypothesis one was only partially supported.

Table 3

Table 3. Mean Comparisons for Hypothesis One						
Experimental Condition						
	Inoculation			Control		
Dependent Measures	<i>M</i>	<i>(SD)</i>	<i>n</i>	<i>M</i>	<i>(SD)</i>	<i>n</i>
Threat	*3.75	1.52	110	3.26	1.31	38
Counterarguing Output	*4.31	9.41	110	1.32	8.77	38
Resistance	.02	1.00	110	-.06	1.07	38
* Means are significantly higher than the control condition $p < .10$						

Hypothesis Two

The second hypothesis predicted a significant difference in the level of front group credibility such that individuals in the RAN inoculation condition report the lowest level of front group credibility, followed by individuals in the standard inoculation, followed by individuals in the control condition. In order to test the second hypothesis, a MANOVA was performed on the dependent variables which together make up source credibility: character, caring, and expertise. The independent variable was inoculation (RAN inoculation, standard inoculation, control).

With Wilks' as the criteria, the overall model was significant $F(6, 348) = 1.82, p = .09, \text{partial } \eta^2 = .03$. An examination of the between subjects results revealed a significant difference in the level of perceived character of the attack message source $F(2, 176) = 3.37, p = .04, \eta^2 = .04$. An examination of the LSD multiple comparison test revealed that contrary to what was predicted, only individuals in the standard inoculation condition perceived front group character to be significantly less than those in the control condition $p = .01$. Therefore, there is no evidence that individuals in the RAN inoculation condition have significantly lower evaluations of character than individuals in the standard inoculation condition ($p = .44$) or the control condition ($p = .13$) (see Table 4 for mean comparisons).

An examination of a between subject results revealed no between groups differences on perceptions of front group caring $F(2, 176) = 2.27, p = .11, \eta^2 = .03$.

However, the results of the LSD multiple comparison tests revealed a significant difference between individuals in the standard inoculation condition and control condition on the level of caring ($p=.051$). Those in the RAN inoculation condition also perceived the front groups to be less caring than did individuals in the control condition ($p= .08$). There were no difference between individuals in the standard and RAN inoculation conditions on perceptions of front group caring ($p=.90$) (see Table 3 for mean comparisons). Finally, the results of the omnibus test revealed no significant differences in perceived front group expertise $F(2,176)=.35, p=.71, \eta^2<.01$ (see Table 4 for mean comparisons). Taken together there was no support for hypothesis two.

Table 4

Table 4. Mean Comparisons for Hypothesis Two									
Experimental Condition									
Dependent Measures	Standard Inoculation			RAN Inoculation			Control		
	<i>M</i>	<i>(SD)</i>	<i>n</i>	<i>M</i>	<i>(SD)</i>	<i>n</i>	<i>M</i>	<i>(SD)</i>	<i>n</i>
Expertise	4.36	.99	90	4.48	1.08	43	4.48	.86	46
Character	*3.74	1.26	90	3.91	1.22	43	4.29	.81	46
Caring	**3.59	1.03	90	**3.56	1.11	43	3.94	.76	46

* Means significantly lower than the control condition ($p = .01$).

** Means significantly lower than the control condition ($p < .10$).

Hypothesis Three

Hypothesis three predicted a significant difference in the perceived front group deceptiveness such that individuals in the control condition report the lowest number of vague or misleading strategies and lowest ratings of truthfulness, followed by individuals in the standard condition, followed by individuals in the RAN condition. In order to test the third hypothesis a MANOVA was conducted with inoculation (RAN, standard, control) as the independent variable and number of clues identified in the front group stealth messages and front group truthfulness rating as the dependent variable.

Although the means were in the predicted direction, the results of the MANOVA were not significant $F(4,336)=.47, p=.76, \eta^2=.01$ (see Table 5 for mean comparisons). There is no support for the conclusion that individuals in the RAN condition identify more vague or misleading strategies $F(2,169)=.53, p=.59, \eta^2=.01$ nor lower ratings of truthfulness $F(2,169)=.45, p=.64, \eta^2=.01$ than did those in the traditional inoculation or control group (see Table 5 for mean comparisons).

Table 5

Table 5. Mean Comparisons for Hypothesis Three									
Experimental Condition									
Dependent Measures	Standard Inoculation			RAN Inoculation			Control		
	<i>M</i>	<i>(SD)</i>	<i>n</i>	<i>M</i>	<i>(SD)</i>	<i>n</i>	<i>M</i>	<i>(SD)</i>	<i>n</i>
# of Suspicious Statements	4.29	3.36	86	4.42	3.10	43	3.74	3.31	43
Truthfulness Ratings	3.35	1.58	86	4.05	1.39	43	4.07	1.22	43

* Means significantly lower than the control condition ($p = .01$).

** Means significantly lower than the control condition ($p < .10$).

Despite the lack of evidence to support hypothesis three, it is likely that there are a number of between group differences in evaluations of front groups. Therefore a number of additional analyses were conducted to determine the accuracy of classifying the attack message source and participants' confidence that their classifications were accurate. The following analyses began by first looking at potential differences between the RAN and standard inoculation groups. If there are no differences between those groups on the level of accuracy and confidence a further analysis was conducted to determine if collapsing both the RAN and standard inoculation conditions into a single treatment condition would reveal any differences compared to individuals in the control groups.

To determine if individuals assigned to the RAN inoculation conditions were more accurate at correctly classifying the source of the attack message as a front group than individuals in the standard inoculation group and the control group, a Chi-Square analysis was conducted. The results of the Chi-Square test were not significant. The results reveal that individuals in the RAN condition were not more accurate in their classification of truthfulness than individuals in the standard inoculation or the control condition $\chi^2(2, N=246) = 3.44, p = .18$. While the results of the test were not significant, the accuracy percentages were in the predicted direction. Individuals in the RAN condition accurately classified the message sources as a front group 84 percent of the time, individuals in the standard condition accurately classified the source 82 percent of the time, and individuals in the control condition accurately classified the source 70 percent of the time.

Further analysis was conducted to determine if individuals in a combined inoculation condition were more accurate in their classification of the message source as a front group $\chi^2(1, N=246) = 4.35, p=.04$ than controls. Indeed, individuals in the inoculation conditions made accurate classifications 83 percent of the time while those in the control condition made accurate classifications 69 percent of the time.

To determine if individual in the inoculation conditions reported more confidence in their classification of the message source as a front group or not, an ANOVA was performed on the dependent variable evaluation confidence. The independent variable was inoculation (standard, RAN, control). The overall model was significant $F(2,178)=3.90, p=.02, \eta^2=.04$, revealing that individuals in the RAN inoculation conditions were significantly more confident they had correctly classified the message source as a front group than controls ($p=.02, M_{RAN}=71.56, SD=22.22; M_{Control}=60.04, SD=23.69$). Individuals in the standard inoculation conditions were also more confident that they had correctly classified the message source as a front group ($p=.01, M_{Standard}=69.64, SD=18.97; M_{Control}=60.04, SD=23.69$). There were no difference between the RAN and standard inoculation group's confidence ($p=.64$).

Research Question One

Research question one was posed to determine if individuals in the combined inoculation conditions become overly suspicious toward legitimate organizations and as a result inaccurately classify them as front groups. In order to

test this research question a Chi-square test was conducted with inoculation (treatment, control) as the independent variable and judgment accuracy for three different message sources (The Family Research Council, the Sierra Club, and Citizens for Consumer Freedom) as the dependent variables. The results of the Chi-Square test revealed no significant difference in accuracy classifications between individuals in the inoculation and control conditions $X^2(1, N=183) = .01, p = .91$. Individuals in the inoculation condition accurately classified the Family Research Council as a non-front group 59 percent of the time and individuals in the control condition accurately classified the group 58 percent of the time.

The results of the Chi-Square test also revealed no significant differences in accuracy classifications of the Sierra Club between individuals in the inoculation condition and those in the control condition $X^2(1, N=183) = .44, p = .51$. Individuals in the inoculation condition accurately classified the Sierra Club as a non-front group 64 percent of the time and individuals in the control condition accurately classified the group 58 percent of the time. The results of the Chi-Square test did reveal significant differences in accuracy classifications for the Center for Consumer Freedom between individuals in the combined inoculation condition and those in the control condition $X^2(1, N=182) = 3.26, p = .07$. Individuals in the inoculation condition accurately classified the Center for Consumer Freedom as a front group 69 percent of the time and individuals in the control condition accurately classified the group only 54 percent of the time.

To determine if individuals in the inoculation conditions reported more

confident in their classifications of the Family Research Council, the Sierra Club, and the Center for Consumer Freedom as a front group or not, a MANOVA was performed on the dependent variables evaluation confidence for each group. The independent variable was combined inoculation (treatment, control). With Wilks' Lambda as the criteria, the overall model was not significant $F(3,177)=.35, p=.56, \eta^2=.002$. The results revealed no significant differences in the level of confidence for the Family Research Council $F(1,179)=.35, p=.56, \eta^2<.01$, the Sierra Club $F(1,179)=.01, p=.91, \eta^2<.01$, or the Center for Consumer freedom $F(1,179)=.68, p=.41, \eta^2<.01$. It appears that even when the individuals in the inoculation condition were more accurate in classifying the Center for Consumer Freedom as a front group than those in the control condition, there is no data to demonstrate they have more confidence in the accuracy of their assessments than those in the control condition.

A critic of the study design might challenge the fact that there were two non-front groups and only one front group. They might argue that a better design would have included two non-front groups and two-front groups. However, Chronbach (1942) demonstrated through experimental testing that that when designing a true-false examination, it is better to "Use more false items than true items to increase reliability and validity" (p. 414). Applied to the present research, participants were asked to determine if for example, the Family Research Council was a front group or not. Their first choice was "Yes, the Family Research Council is a front group" while their second choice was "No, the Family Research Council

is not a front group.” In this case, the correct answer would be “No,” which is essentially parallel to “False.” For the second group, the Sierra Club, the correct answer was also “No.” The last group, Center for Consumer Freedom is a front group and therefore the correct answer was “Yes.” In this case the design conforms to the Cronbach’s recommendations to use more items in which false is correct than true.

Hypothesis Four

Hypothesis four predicted that compared to controls, individuals who receive the original inoculation engage in significantly more heuristic processing than individuals who receive RAN inoculation messages. In order to test the fourth hypothesis a repeated measures ANOVA was conducted with inoculation (RAN, standard, control) as the independent variable and message processing in Phase I and Phase II as the dependent time variables.

The multivariate results were not significant $F(2,154) = .31, p = .73$, partial $\eta^2 < .01$. It appears that there is no evidence to support the hypothesis that inoculation condition (RAN, standard, control) differentially influenced message processing within participants from Phase II and Phase III. There was also no between subjects differences in message processing $F(2,154) = 1.89, p = .15, \eta^2 = .02$ (see Table 6 for mean comparisons) although the means for Phase II and Phase III message processing were in the predicted direction.

Table 6

Table 6. Mean Comparisons for Hypothesis Four									
Experimental Condition									
Dependent Measures	Standard Inoculation			RAN Inoculation			Control		
	<i>M</i>	<i>(SD)</i>	<i>n</i>	<i>M</i>	<i>(SD)</i>	<i>n</i>	<i>M</i>	<i>(SD)</i>	<i>n</i>
Phase I Processing	3.18	2.42	81	3.22	2.13	36	2.70	1.60	40
Phase II Processing	1.88	2.40	81	2.39	2.16	36	1.48	2.06	40

Hypothesis Five

The fifth hypothesis predicted that individuals who receive RAN inoculation messages will report greater levels of threat, anger, counterarguing and resistance to front group stealth messages than individuals who receive original inoculation messages or control messages. In order to test hypothesis five, a multivariate analysis of variance was performed on the dependent variables: threat, counterarguing output, Phase II anger, and resistance to counterattitudinal persuasion. The independent variable was inoculation type (RAN, standard, control). With the Wilks' criteria, the overall model was significant $F(8, 280)=1.86, p=.07$, partial $\eta^2=.05$.

The between subjects test supported the prediction that inoculation type made a significant difference for threat $F(2,143)=2.48, p=.09, \eta^2=.04$. An examination of the LSD post hoc test revealed significant differences between individuals in the RAN inoculation condition and those in the control condition ($p=.03$). The post hoc test revealed no difference in the level of threat between individuals assigned to the RAN conditions and the standard inoculation condition ($p=.26$). There is also no evidence that individuals in the standard inoculation experienced more threat than individuals in the control condition ($p=.16$) although the means were in the predicted direction (see Table 7 for mean comparisons).

The between subject test did not support the prediction that inoculation type made a significant difference for anger toward front groups $F(2,143)=2.39, p=.10, \eta^2=.03$. However, an examination of the LSD post hoc test revealed that

individuals in the standard inoculation condition reported more anger toward front groups than those in the in the control condition ($p=.03$). There was no evidence that individuals in the RAN condition experienced more anger than individuals in the control condition ($p=.12$). The post hoc test also revealed no difference in the level of anger between individuals assigned to the RAN conditions and the standard inoculation condition ($p=.72$) (see Table 7 for mean comparisons).

An examination of the between subject results revealed a significant difference between inoculation type on counterarguing output $F(2, 143)=3.13$, $p=.05$, $\eta^2 = .04$. Examination of LSD post hoc tests revealed that individuals who received the improved RAN message produced significantly more counterarguing output than individuals in the control condition ($p=.01$). There was no evidence to conclude that individuals in the RAN inoculation condition generated more counterarguments than individuals in the standard inoculation condition ($p=.10$). Finally, there was no evidence that those in the standard condition generated more counterarguing than controls although the means were in the predicted direction ($p=.24$).

Inoculation type was not significant for resistance to counterattitudinal persuasion (Phase I attitude subtracted from Phase III attitude) $F(2, 143)=.21$, $p=.81$, $\eta^2 < .01$ (see Table 7 for mean comparisons). Examination of LSD post hoc test revealed no evidence of differences between individuals in the RAN inoculation condition and individuals in the control condition ($p=.55$). No differences were observed between individuals in the standard inoculation

condition and those in the control condition for resistance ($p=.87$) although the means were in the predicted direction. Taken together hypothesis five is partially supported.

Table 7

Table 7. Mean Comparisons for Hypothesis Five									
Experimental Condition									
Dependent Measures	Standard Inoculation			RAN Inoculation			Control		
	<i>M</i>	(<i>SD</i>)	<i>n</i>	<i>M</i>	(<i>SD</i>)	<i>n</i>	<i>M</i>	(<i>SD</i>)	<i>n</i>
Threat	3.63	1.46	72	*3.96	1.62	37	3.21	1.28	37
Anger	*5.31	1.29	72	5.22	1.52	37	4.72	1.35	37
Counterarguing	3.25	8.77	72	*6.38	10.47	37	1.06	8.74	37
Resistance	-.03	.98	72	.08	1.03	37	-.06	1.09	37

* Means were significantly greater than the control condition ($p < .05$).

Hypothesis Six

Hypothesis six predicted that individuals in the RAN inoculation condition would engage in significantly more relevant on-line information seeking behaviors than individuals in the standard inoculation condition, who in turn would engage in significantly more relevant on-line information seeking than individuals in the control condition. In order to test this hypothesis an ANOVA was performed on the dependent variable of message related on-line searches. The independent variable was inoculation (standard, RAN, control).

The results of the ANOVA revealed a significant difference in the amount of relevant on-line information seeking behaviors $F(2,119)=3.56, p=.03, \eta^2 = .06$ (see Table 8 for mean comparisons). An examination of the results of the LSD multiple comparison test revealed that individuals in the RAN condition engaged in significantly fewer relevant on-line searches than individuals in the standard inoculation condition ($p=.04$). In addition individual in the RAN condition engaged in significantly fewer relevant on-line searches than individuals in the control condition ($p=.01$). There were no difference in the number of relevant on-line searches between individuals in the standard inoculation condition and the control condition ($p=.36$) (see Table 8 for mean comparisons).

While these results appear to be the opposite of what was predicted, they are not. During the 10 minutes of searching individuals in the RAN condition searched fewer sites. However, if the majority of their 10 minutes of on-line search time they actually had a webpage open and were reading the material, even if they

conducted fewer searches they were likely to get more information than an individual who typed in 10 search strings and read only a few words on each page, even if those pages were relevant.

In order to test the likelihood that individuals who typed in more search strings spent less time within actual webpages to gather information, a sample of 25 videos were re-reviewed. To determine length of possible engagement with the information, the researcher used a timer to document the length of time each participant spent inside a webpage. As soon as the participant began typing in another search string, the researcher stopped the timer. The total time spent within the webpages was then recorded. A Person's r correlation was computed to test the expectation that there is an inverse relationship between the number of search strings and the total time the participant spent on the webpages. The results revealed support for this prediction. It appears that as a person types in more and more search strings, they have less overall time to spend reading the content within the webpages they actually open $r = -.552$, $p = .004$. Therefore hypothesis six was supported.

Table 8

Table 8. Mean Comparisons for Hypothesis Six									
Experimental Condition									
		Standard Inoculation			RAN Inoculation		Control		
Dependent Measures	<i>M</i>	(<i>SD</i>)	<i>n</i>	<i>M</i>	(<i>SD</i>)	<i>n</i>	<i>M</i>	(<i>SD</i>)	<i>n</i>
Relevant Searches	3.94	2.63	63	*2.61	3.55	33	4.58	2.96	26

* Mean is significantly lower than both the standard inoculation condition and the control condition ($p < .05$).

Hypothesis Seven

Hypothesis seven predicted that individuals whose actual confidence in their ability to identify front groups is less than their desired confidence in their ability to identify front groups and who have greater accuracy motivation to identify front group stealth messages engage in more relevant on-line information seeking behaviors than unmotivated individuals. In order to assess hypothesis six, the number of relevant on-line searches were regressed on the level of accuracy motivation and sufficiency. The regression analysis revealed that neither the sufficiency principle nor accuracy motivation predicted relevant on-line information seeking behaviors $r^2 = .013$ (adjusted $r^2 < .01$), $F(2,141) = .94$, $p = .39$. There was no support for hypothesis seven (See Table 9 Regression).

Table 9

Table 9. Regression Results for Relevant Searches from the Sufficiency Principle and Accuracy Motivation					
Variables	Relevant Searches	Sufficiency	Accuracy	b	β
Sufficiency	.08	1.00	.24	.162	.102
Accuracy	-.06	.24	1.00	-.215	-.08
Intercept	= 4.46				
<i>Means</i>	3.64	2.08	5.40		$R^2 = .014$
<i>SD</i>	3.12	1.98	1.18		$R^2_{adj} < .01$
<i>n</i>	144	144	144		$R = .115$

Hypothesis Eight

Hypothesis eight predicted an interaction effect between experimental condition and the motivational booster such that: Individual who receive the RAN message plus a motivational booster report significantly less confidence in their ability to identify front groups than desired confidence than any other experimental condition.

In order to test the hypothesis eight a 3 (standard inoculation, RAN inoculation, control) x 2 (booster, control) factorial analysis of variance was conducted on the dependent variable accuracy motivation. The results revealed no interaction effect between inoculation type and motivational booster on the level of accuracy motivation $F(2,169)=.93, p=.40, \eta^2 = .01$. A Tukey's post hoc test was conducted comparing the RAN inoculation treatment plus booster to all other conditions on the dependent variable sufficiency principle. The results were not significant. There is no evidence of an interaction effect between inoculation type and motivation booster on accuracy motivation. Hypothesis eight was not supported.

Hypothesis Nine

The ninth hypothesis predicated an interaction effect between inoculation condition and the booster conditions such that individuals in the RAN condition are more resistant to counterattitudinal persuasion than individuals who receive any other treatment combination. In order to test hypothesis eight, a 3 (Ran, standard, control) x 2 (booster, no booster) factorial ANOVA was performed on the

dependent variable resistance to counterattitudinal persuasion.

The results of the factorial ANOVA revealed no significant interaction between the inoculation message type and the presence of absence of a booster message $F(2, 154) = .68, p = .51, \eta^2 < .01$. A Tukey's post hoc test was conducted comparing the RAN inoculation treatment plus booster to all other conditions on the level of resistance or attitude change from Phase I and Phase III. The results were not significant. Therefore, hypothesis nine was not supported.

Chapter 5: Discussion

Front group stealth messages have the potential to muddy the waters of important political issues as well as manipulate information about consumer and environmental safety. Healthy discourse about important issues is undermined when politicians, corporations, or special interest groups hide behind front groups. This investigation was not the first to point out the troubling persuasive potential of front group stealth messages. A series of investigations conducted by Pfau et al. (2007) and Robertson and colleagues (2010) explored the potential of the inoculation strategy for reducing the influence of deceptive front group messages.

Pfau and colleagues found that inoculation was an effective strategy for conferring resistance to deceptive front group stealth messages; however Robertson et al (2010) failed to replicate these results. Pfau and colleagues suggested that front groups are persuasive because individuals fail to systematically process all of the important message-related features that may call attention to the discrepancies between the names of the groups and the positions they hold. As a result it is likely that front groups are persuasive because individuals draw on heuristic cues to process their messages. This explanation is consistent with the HSM, but they did not test it. Robertson et al. (2010) noted this gap as an area for additional research attempted to do so, but departed from the standard tests of the HSM by using a self-report method for message processing (Novak & Hoffman, 2005). As a result, while the attempt was made to test the theoretical linkages between the HSM and inoculation theory, the study procedures prevented a successful merger.

To reconcile these different results, and to test the connections between the HSM and inoculation theory, the present study tested both an standard inoculation message, and proposed that improvements could be made to the inoculation message to draw specific attention to how front groups shift responsibility, lack argument quality, and use misleading names referred to as RAN inoculation messages. Much research has demonstrated that individuals who are inoculated are motivated to protect their attitudes and as a result generate more counterarguments than controls (Compton & Pfau, 2004; Pfau et al., 2007; Szabo & Pfau, 2002). The RAN message was designed to motivate careful and guided information seeking behaviors and the subsequent processing of the front group attack message in a way that would prepare them to easily identify deceptive front group tactics. As a result, it was expected that individuals in the standard inoculation condition would produce more counterarguments than those in the control group, but individuals in the RAN conditions would produce the most counterarguments.

Similarly it was predicted that those in the RAN condition would accurately identify the source of the attack message as a front group more than those in the standard inoculation condition, who in turn would be more accurate than the control condition. Because research has demonstrated the efficacy of the inoculation strategy to confer resistance to counterattitudinal persuasion (Banas & Rains, 2010; Ivanov et al., 2012; Pfau et al., 2007; Szabo & Pfau, 2002) it was expected that the standard inoculation message would confer resistance to front group stealth messages but that the RAN messages would do so more effectively. If

the RAN inoculation more clearly articulated what features to look for in potential front group messages, they would be even more sensitive to both the argument quality and the sources of the attack messages and as a result more readily shield their attitudes from a front group's counterattitudinal attack.

RAN Inoculation Success

As expected, systematic differences were found between the RAN inoculation group, the standard inoculation group, and the control group. Individuals in the RAN group engaged in a more focused on-line searches than did individuals in both the standard and control group. Furthermore, there was no difference between the search strategies between the standard inoculation group and the control group, which provides some evidence of the superiority of the RAN messages compared to the standard inoculation condition. When an individual goes to the library with no clear topic in mind, they may conduct quite a few searches before narrowing down to a single topic. However, with a clear purpose in mind, their searches are more precise and focused. Likewise the clear directives of the RAN messages may have narrowed the focus of the individuals so much so that only a few searches were necessary to gather the desired information.

This research finding parallels the Walther et al. (2010) research about on-line information seeking. In particular Walther and colleagues found that it didn't matter when the searchers had a relational goal or not, their searching behaviors were the same. In addition, they found that it was only when the participants had disaffinity goals that they engaged in more information-seeking behaviors. Walther

and colleagues concluded the differences in searching behaviors were limited to liking and disliking. Both inoculation messages portrayed front groups in a negative light, but perhaps the specificity of the RAN messages reinforced this negativity in a way that produced the difference in searching behaviors. While the current research measured participants' anger toward front group tactics, the results did not reveal significant differences between those in the RAN condition and those in the standard inoculation condition, although both groups experienced more anger than the control condition. Even if the participants in the RAN group did not report more anger about front groups tactics, they were still propelled to search more narrowly than did the standard and control conditions. Future research should include additional items to measure participant's dislike or other motivational factors to explain the pattern of differences.

Finally, only the individuals in the RAN inoculation condition reported more threat than the control condition. This finding is notable given the role of threat has recently been called into question by other inoculation researchers (Banas & Rains, 2010; Compton & Ivanov, 2012). This is an important finding not because it confirms threat's role in inoculation, indeed neither those in standard nor those in the RAN condition were more resistant to counterattitudinal attacks than controls, but rather this result may lead researchers to determine the message related factors that present the boundary conditions of threat. More broadly however, as a number of resistance scholars have recently argued (Banas & Rains, 2010; Miller et al., 2013), future research should focus on uncovering the role of

threat in inoculation theory.

It is worth noting again that both individuals in the RAN condition and the standard inoculation condition reported more anger about front groups' attempts to deceive them than did those in the control condition. On the other hand, the RAN messages alone produced more threat than the control group, which remains the traditional explanation for the motivational force behind inoculation. It is important to determine what precisely about the RAN inoculation messages was sufficient to elicit threat. It is also important to determine if these message-related elements are applicable beyond the context of deceptive front group stealth messages. Was the RAN messages more successful at generating more focused on-line searching behaviors and threat because they were clearer? Was their success simply because they identified front groups' common strategy of responsibility shifting or was the RAN message more successful because of the combination of identifying multiple front group strategies? These are important directions for future research.

Unanticipated Inoculation Results

As expected, those in an inoculation condition produced more counterarguing output than individuals in the control condition. Contrary to predictions, when just looking at the combined inoculation treatments compared to the control group, individuals did not report more threat nor did they report more resistance to counterattitudinal persuasion. This result may have occurred for three possible reasons. First, perhaps the attitude scale range was so narrow (1-7) as to restrict the range of responses offered by participants. In particular, if a participant

starts out with an attitude score of 5.23 and drops to 5.14 at the end of the study these differences may be so small that it inhibits the discovery of real differences. Because resistance is dealing with how much each participant's attitude changes after being exposed to the counterattitudinal attack, the change scores have the potential to be very small. One possible response to this challenge was presented in a newly published research study by Miller et al., (2013). Miller and colleagues employed the same semantic differential scales to measure attitudes, but instead of using a 7-point scale, they used an 11-point scale. Perhaps providing a wider continuum of possibilities may provide greater difference scores revealing any real differences between groups.

A second possible explanation for these results is that compared to controls individuals in the inoculation conditions did not report more threat, which has traditionally been credited as the motivational variable behind resistance. Miller et al., (2013) called for a further exploration of threat's function in inoculation as well ways to strengthen its motivation force. They successfully bolstered threat by integrating a psychological reactance induction designed to generate not only the traditional forewarning of impending attack but also a forewarning of a potential source would threaten their freedom to hold an attitude in the first place. Their results revealed that threat could be strengthened and those in the bolstered threat condition produced more resistance to counterattitudinal persuasion than those in the standard threat and control condition. Perhaps if the present research had attempted to bolster threat in this way, the results would have been different.

The most likely possibility is that because all participants, even those in the control condition, had an opportunity to search the Internet for information about front groups everyone was resistant to front group stealth. In particular, during the 10 minute information-seeking session, many searchers chose Wikipedia for information on front groups. Regardless of whether or not the information from the Wikipedia website was reliable or accurate, the descriptions were generally negative (Wikipedia, 2013). It may be that the information-seeking sessions provided the people in the control conditions with the information they needed to resist front group stealth messages. In order to determine if the information-seeking session contributed to resistance, this research would need to be replicated with the addition of a control condition that would receive the control message and would not have the information-seeking opportunity.

The Trouble with Deception

Deception research consistently reports that individuals are not very skilled at detecting deception (Bond & DePaulo, 2006, 2008). In fact, much research demonstrates the accuracy rates are about 50 percent (Bond & DePaulo, 2006, 2008). Even so, research has demonstrated that training can improve accuracy rates (Frank & Feely, 2003). The present study found that individuals in the inoculation conditions made accurate classifications 83 percent of the time while those in the control condition made accurate classifications 69 percent of the time. Those in the inoculation conditions also reported more confidence in their classification of the source of the attack message than those in the control conditions. Cao and

colleagues (2003) advance that successful deception detection training should include “instruction, practice, and feedback” (p. 359). Perhaps the inoculation treatments served as an instructional tool and the counterarguments gave the participants an opportunity to practice. If so, all that was missing was feedback.

Feedback might have prevented a potential negative side effect of the inoculation treatments. In particular, this research explored whether exposure to the inoculation messages would influence their accuracy in properly classifying other groups as front groups. The results reveal no differences in accuracy between those in the inoculation condition and the control condition for the Sierra Club and the Family Research Council. In particular individuals in the inoculation condition accurately classified the Sierra Club 64 percent of the time and those in the inoculation condition accurately classified the group 58 percent of the time. Furthermore, individuals in the inoculation condition accurately classified the Family Research Council 59 percent of the time and those in the control condition were accurate 58 percent of the time. While the percent of people in the inoculation conditions classifying these groups as non-front groups was higher, it was not significantly higher. These results are notable and somewhat concerning because both of these groups are legitimate organizations. It may be that the inoculation message contributes to a lie bias, which in this case resulted in the inaccurate classification of legitimate groups as front-groups.

Systematic differences were found between individuals in the inoculation conditions and the control conditions when individuals were asked to classify the

Center for Consumer Freedom, which is a front group. Individuals in the inoculation condition accurately classified the Center for Consumer Freedom as a front group 69 percent of the time and individuals in the control condition accurately classified the group only 54 percent of the time. Again, the fact that individuals in the inoculation condition were more accurate when the message sources were front groups but not when they were legitimate groups may provide additional evidence of the unwarranted suspicion. Perhaps feedback would have prevented what appears to be an elevated suspicion among those in the inoculation conditions. As a result, further research should determine if these accuracies could be attributed to a lie bias rather than because the group really was a front group.

Those in the inoculation condition more accurately classified front groups; however the results revealed that they were not more confident that their classifications were correct. In particular, those in the inoculation condition had no more confidence than those in the control group that they accurately classified the Family Research Council, the Sierra Club, or the Center for Consumer freedom as a front group or not. It appears that even when the individuals in the inoculation condition were more accurate in classifying the Center for Consumer Freedom as a front group than those in the control condition, they showed no more confidence in the accuracy of their assessments than those in the control condition. It appears that confidence in their assessments may be limited to circumstances when they have some information about the sources.

Theoretical Implications for Inoculation

Threat is central to traditional theorizing about resistance to counterattitudinal behavior within inoculation research. However, the Banas and Rains (2010) meta-analytic review revealed that threat was not significantly related to resistance. This finding is important because it invites careful exploration of the motivational factor that was once considered the heart of the inoculation strategy. This investigation found that compared to controls, threat was only significant in the RAN condition. Traditionally speaking, since the RAN messages produced more threat and counterarguing than the control group, they should have also been more resistant to front group stealth messages. However, this outcome was not the case. No differences were found in the level of resistance to counterattitudinal persuasion between groups.

A budding focus among inoculation scholars concerns how people will interact with others after exposure to inoculation messages. In particular, Compton and Pfau (2009) theorized that individuals who experience the threat and counterarguing combination within inoculation treatments could spread the immunizing effect of inoculation because they would engage in “proselytizing” within their social circles (p. 9). Ivanov, Miller, Compton, Averbeck, Harrison, Sims, et al. (2012) explored this concept by investigating whether postinoculation talk or discussing the issues addressed in the treatment with others had any influence on subsequent resistance. They predicted that inoculation treatments motivate postinoculation talk and in turn that postinoculation talk bolsters

resistance to subsequent counterattitudinal attacks. They found that individuals in the inoculation condition discussed the issues more and also with more conversational partners than those in the control conditions. Furthermore, they discovered that postinoculation talk or discussing the issues presented in the inoculation treatments with others outside of the experimental setting bolsters resistance. This finding lead Ivanov and colleagues to conclude “Each newly discovered ancillary effect of the inoculation process offers a more complete portrait of the inoculation-generated resistance to influence” (p. 712-713). These results may point to an individual’s desire for interaction or a simple desire for additional information, or perhaps even both.

The results of the current investigation certainly point to systematically different information-seeking behaviors among those in the RAN condition. It is clear that both individuals in the RAN and the standard inoculation evaluated the character of front groups significantly less than the control condition. But what is unclear is why that lower rating of character did not motivate the participants equally to search for information about front groups. Perhaps the RAN message was more engaging to the readers and therefore they more actively searched for information about front groups. Perhaps those in the standard conditions made up their mind quickly that front groups had poor character but had no further motivation to seek and carefully process related information. Future research should explore if the RAN treatment also produced more postinoculation talk and conversely if individuals in other inoculation experiments engage in systematically

different information-seeking behaviors.

Theoretical Implications for HSM

This study explored the linkages between the HSM and inoculation theory. It was anticipated that when individuals' desire for confidence in their ability to identify deceptive front group messages was greater than their actual confidence to do so, they would be more motivated to engage in systematic processing of both the inoculation treatments and the counterattitudinal attack. This hypothesis was grounded in the HSM's sufficiency principle, which states that individuals' who's desired confidence is greater than their actual confidence will be more motivated to systematically process information (Chaiken, Giner-Sorolla, & Chen, 1996). However, neither the sufficiency principle nor accuracy motivation predicted relevant on-line information seeking behaviors. These results leave unanswered questions about the systematic differences between the searches conducted by individuals in the RAN condition, compared to the standard inoculation condition and the control condition.

Grounded in the HSM, this investigation predicted those in the RAN condition would evaluate front groups as the least credible, followed by those in the standard inoculation condition. Participants rated front group expertise, character, and caring, all components of credibility. Both inoculation conditions rated the front groups as less caring than controls, those in the RAN condition did not rate front groups to be less caring than those in the standard condition. There were no systematic differences between the groups on the evaluation of front group

expertise. Only individuals in the standard inoculation condition rated front group character significantly lower than the control condition. Even so, this evaluation did not lead to resistance to counterattitudinal persuasion.

The HSM predicts that when the sufficiency principle is met, individuals process messages systematically. If the sufficiency principle is not met, individuals will process messages heuristically. This study found no systematic differences for individuals in the RAN, standard inoculation, or control condition. While there are things about the inoculation messages that should produce systematic differences with regard to resistance, it could be that many of individuals even in the control condition became curious as they began to read the information on-line. Because message processing was measured after the on-line search, it may be that individuals were able to clearly note concrete information and evaluations of front groups. It could be that the threat measure inside the survey piqued the participant's curiosity and as a result, when they were given the opportunity to search, many searched for information about front groups. Again, this would also provide the explanation for why there were no differences between the groups on resistance.

These results follow the pattern discovered by Banas and Rains (2010) as they discovered no relationship between issue involvement and resistance. While this investigation explored accuracy motivation rather than issue involvement, the results were similar for these two motivational variables. Still, it is likely that motivation is a central part of this process and as a result, future research needs to explore the role of motivation in inoculation. Perhaps the inoculation messages

made heuristics even easier to use as they were more available, accessible, and applicable, three predictors of the application of heuristic cues (Chaiken et al., 1989). This possibility should be tested in future research.

Limitations

Inoculation scholars are pushing toward a better understanding of how to maximize resistance. This investigation proposed that fine-tuning the way a motivational booster was delivered to participants could bolster the efficacy of the inoculation treatment. While this is an important line of inquiry, the present study did not demonstrate that the inclusion of a booster strengthened resistance. It may be that those who read the booster message designed to be motivational did not find the message motivational, but rather simply informational. Also, everyone in Phase II was told to carefully process the information from the study, which may have had a lasting influence on participants' motivation to carefully review the information. Furthermore, while an attempt was made to determine if inoculation was an effective strategy to confer resistance to front group stealth regardless of what side of the issues of mandatory recycling legislation or preservation of the National Wetlands a person might be on, the results can only be generalizable to individuals who have positive attitudes toward both issues.

In addition, in an attempt to test the efficacy of inoculation on both sides of these issues, artificial front groups were created. Unfortunately, because the participants had 10 minutes to search for additional information about the front groups, it is likely that they became suspicious to the fact that they were not

legitimate when their search stings returned no matches. In fact, one participant repeatedly typed search strings looking for information about Conservatives for Clean Communities, but of course no match was available. Therefore these results may not be generalizable to negative attitudes toward issues. Finally, preliminarily the control condition was presented in a single survey in which participants were asked to generate counterarguments to both issues. This issue was corrected before the majority of participants were enrolled in the control condition, but may have influenced the number of counterarguments generated in the control condition just because of fatigue.

Directions for Future Research

Future research should explore information-seeking behaviors such as on-line searches in this study as well as post inoculation talk (PIT) (Ivanov, et al., 2012) to better understand the potential spread of resistance. While this study was confined to examining information-seeking behaviors, it would important to determine if focused information-seeking behaviors together with PIT generate an even stronger level of resistance to counterattitudinal persuasion.

While threat has traditionally received the credit for the motivation to protect attitudes, even those in the RAN condition, the only group to experience more threat than the control condition were not more resistant to counterattitudinal threat. These results do not rule out the role of threat in the inoculation process, but do call for further exploration of its function. It may be that it is necessary but not sufficient to motivate attitude protection. Furthermore, it is time to explore

motivational variables beyond threat such as psychological reactance posted by Miller et al., (2013) the potential force behind resistance to counterattitudinal attacks. It may be fruitful to replicate the experiment conducted by Miller and colleagues with the addition of a condition that dropped the traditional threat induction and only had the reactance induction. These are important directions for future research.

One unexpected finding was that there were no systematic differences in message processing between the inoculation or control groups. It was expected that the RAN condition in particular would generate the most systematic processing. It may be that the inoculation messages made heuristics even easier to use as they were more available, accessible, and applicable, three predictors of the application of heuristic cues (Chaiken et al., 1989). The possibility that the inoculation conditions equipped the participants with easily readily available, accessible, and applicable heuristics should be tested in future research.

Conclusion

This research explored two motivational factors accuracy motivation and the sufficiency principle drawn from the heuristic processing model (Chaiken, 1980) to understand the role of message processing in the success of deceptive front groups. To date, Pfau and colleagues (2007) suggested front groups are successful because individuals fail to systematically process their messages but did not test this explanation. Robertson et al., (2010) attempted to test this explanation; however methodological missteps may explain their null findings. Furthermore,

Pfau et al. (2007) predicted and found that inoculation produced resistance to front group attacks; however Robertson et al (2010) did not. In an attempt to reconcile these differences, this investigation tested inoculation theory again, but this time with a few changes based on front group strategies. In particular, front groups constantly hide behind deceptive positive sounding names. Because Pfau and colleagues found that inoculation conferred resistance to front group messages but Robertson and colleagues did not, this research explored whether a standard inoculation message is sufficient to generate resistance to front groups' messages or if an improved inoculation treatment called RAN inoculation is necessary.

This study reasoned that if the RAN inoculation messages were superior, they should also generate more relevant and focused information-seeking behaviors and greater accuracy in classifying front groups. While this research failed to shed light on the link between message processing and the persuasiveness of front group messages, it did establish the efficacy of the RAN inoculation treatment for both the production of counterarguments but also those individuals engaged in more focused information-seeking behaviors. Individuals in the inoculation conditions were also more likely to accurately identify the source of the messages as front groups than those in the control group when they were actual front groups.

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Appendix A: Inoculation Messages

Keep America Beautiful RAN

Beware of Groups that Seek to Mislead

As a responsible citizen, you have probably drawn some conclusions about issues such as how best to preserve America's wetlands, how to keep our communities clean by reducing litter, and how to achieve energy independence without damaging the environment. Controversial issues have prompted politicians, businesses, and interest groups to encourage the public to side with them. Engaging in informed debates is part of the democratic process and everyone has a right to weigh in on the issues.

Knowing their positions are unpopular with mainstream Americans, some corporations and special interest groups choose less honorable tactics. Many organizations create front groups, which are groups with names that suggest values that most people can embrace, but are actually working to undermine the very ideals associated with names. They have perfected the art of deceptive messages that discourage listeners from scrutinizing the real goals of the group. Research confirms their efforts are quite persuasive and as a result, they may cause even you to rethink your positions based on deceptive information.

Keep America Beautiful (KAB), is one such front group. Most people would think KAB was an organization that represents their values. In reality, KAB, funded largely by tobacco companies, launched campaigns around the country promoting individual responsibility for litter removal while simultaneously

derailing any regulations that would force corporations to make environmentally friendly products and packaging. Clearly, we need to do our part, however corporations should also do their part creating more environmentally friendly products and packaging. KAB arguments are so compelling that without careful scrutiny of their message, they can win over people just like you, therefore their messages have an enormous impact on public opinion about cigarette and other litter control and removal. Their message sounds positive, but it leaves you on the hook to pay for and to clean up the environment, while tobacco companies do nothing.

Front groups deceive many people but if you understand their tactics, you can avoid being deceived. Here is a list of front group tactics.

1. Front groups try to excuse corporations from their responsibility to make safe products. They do this by emphasizing that individuals, not corporations should assume responsibility for the negative effects of their products.

2. Front groups select names that sound positive, but are misleading. It is easy to assume that a group with the name “Keep America Beautiful,” would pursue all options to keep communities beautiful. However, they should be called “Keep America Beautiful as Long as It Doesn’t Require Corporate Change.”

3. Front groups use arguments that sound good, but are vague and often unclear. Sometimes statements are misleading because of what they omit who exactly funds them.

It is likely that you will encounter a front group like Keep American Beautiful. If so, go on-line to find out what you can about the group and its sponsor. Evaluate the merits of the position in the message and the name of the group. You may find that the sponsor's name and the arguments are at cross-purposes with one another.

Keep America Beautiful Standard

Beware of Groups that Seek to Mislead

As a responsible citizen, you have probably drawn some conclusions about issues such as how best to preserve America's wetlands, how to keep our communities clean by reducing litter, and how to achieve energy independence without damaging the environment. Controversial issues have prompted politicians, businesses, and interest groups to encourage the public to side with them. Engaging in informed debates is part of the democratic process and everyone has a right to weigh in on the issues.

Knowing their positions are unpopular with mainstream Americans, some corporations and special interest groups choose less honorable tactics. Many organizations create front groups, which are groups with names that suggest values that most people can embrace, but are actually working to undermine the very ideals associated with names. They have perfected the art of deceptive messages that discourage listeners from scrutinizing the real goals of the group. Research confirms their efforts are quite persuasive and as a result, they may cause even you to rethink your positions based on deceptive information.

Keep America Beautiful (KAB), is one such front group. Most people would think KAB was an organization that represents their values. In reality, KAB, funded largely by tobacco companies, launched campaigns around the country promoting individual responsibility for litter removal while simultaneously derailing any regulations that would force corporations to make environmentally

friendly products and packaging. Clearly, we need to do our part, however corporations should also do their part creating more environmentally friendly products and packaging. KAB arguments are so compelling that without careful scrutiny of their message, they can win over people just like you, therefore their messages have an enormous impact on public opinion about cigarette and other litter control and removal. Their message sounds positive, but it leaves you on the hook to pay for and to clean up the environment, while tobacco companies do nothing.

The likelihood of your contact with front group like KAB is fairly high, but you can protect yourself from the deception.

1. Pay attention to the *real* sponsor of these campaigns. Don't be fooled by the name. The real power behind these campaigns is that the name may be designed to deceive you.

2. We encourage you to find out about the sponsor and their true values by going on line.

3. Focus on their arguments. Are the claims true and well supported, or are they vague and/or misleading? Be sure that you evaluate the merits of the position in the message.

It is likely that you will encounter a front group. If so, evaluate the merits of the position in the message and the name of the group. You may find that the sponsor's name and the arguments are at cross-purposes with one another.

National Wetlands Coalition RAN

Beware of Groups that Seek to Mislead

As a responsible citizen, you have probably drawn some conclusions about issues such as how best to preserve America's wetlands, how to keep our communities clean by reducing litter, and how to achieve energy independence without damaging the environment. Controversial issues have prompted politicians, businesses, and interest groups to encourage the public to side with them. Engaging in informed debates is part of the democratic process and everyone has a right to weigh in on the issues.

Knowing their positions are unpopular with mainstream Americans, some corporations and special interest groups choose less honorable tactics. Many organizations create front groups, which are groups with names that suggest values that most people can embrace, but are actually working to undermine the very ideals associated with names. They have perfected the art of deceptive messages that discourage listeners from scrutinizing the real goals of the group. Research confirms their efforts are quite persuasive and as a result, they may cause even you to rethink your positions based on deceptive information.

The National Wetlands Coalition (NWC) is one such group. Most people with pro-environmental attitudes would think the NWC represents their values. In reality, the NWC, funded largely by oil and gas companies launched campaigns to erode legislative attempts to shield Federally protected wetlands because they slowed corporate profits. Despite their name, NWC's purpose is to prevent

restrictions for business in nationally protected wetlands habitats. In order to address environmental sustainability, we all need to do our part. Legislation is needed to ensure that development firms and oil and gas companies do their part by adopting more environmentally sustainable practices because as we can see, they won't adopt these practices on their own. The NWC's arguments are so crafty that they can deceive people just like you. Their messages potentially have an enormous impact on public opinion about environmentally sustainable business practices.

Front groups deceive many people but if you understand their tactics, you can avoid being deceived. Here is a list of front group tactics.

1. Front groups try to excuse corporations from their responsibility to make safe products. They do this by emphasizing that individuals, not corporations should assume responsibility for the negative effects of their products.

2. Front groups select names that sound positive, but are misleading. It is easy to assume that a group with the name "National Wetlands Coalition," would pursue all options to keep communities beautiful. However, they should be called "National Drill and Develop the Wetlands Coalition."

3. Front groups use arguments that sound good, but are vague and often unclear. Sometimes statements are misleading because of what they omit who exactly funds them.

It is likely that you will encounter a front group like the National Wetlands Coalition. If so, go on-line to find out what you can about the group and its

sponsor. Evaluate the merits of the position in the message and the name of the group. You may find that the sponsor's name and the arguments are at cross-purposes with one another.

National Wetlands Coalition Standard:

Beware of Groups that Seek to Mislead

As a responsible citizen, you have probably drawn some conclusions about issues such as how best to preserve America's wetlands, how to keep our communities clean by reducing litter, and how to achieve energy independence without damaging the environment. Controversial issues have prompted politicians, businesses, and interest groups to encourage the public to side with them. Engaging in informed debates is part of the democratic process and everyone has a right to weigh in on the issues.

Knowing their positions are unpopular with mainstream Americans, some corporations and special interest groups choose less honorable tactics. Many organizations create front groups, which are groups with names that suggest values that most people can embrace, but are actually working to undermine the very ideals associated with names. They have perfected the art of deceptive messages that discourage listeners from scrutinizing the real goals of the group. Research confirms their efforts are quite persuasive and as a result, they may cause even you to rethink your positions based on deceptive information.

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restrictions for business in nationally protected wetlands habitats. In order to address environmental sustainability, we all need to do our part. Legislation is needed to ensure that development firms and oil and gas companies do their part by adopting more environmentally sustainable practices because as we can see, they won't adopt these practices on their own. The NWC's arguments are so crafty that they can deceive people just like you. Their messages potentially have an enormous impact on public opinion about environmentally sustainable business practices.

The likelihood of your contact with front group like NWC is fairly high but you can protect yourself from the deception.

- 1. You can pay close attention to the *real* sponsor of these campaigns. Don't be fooled by the name. The real power behind these campaigns is the name may be designed to deceive you.**
- 2. We encourage you not to find out about the sponsor and their true values by going on line.**
- 3. Focus on the claims or arguments presented. Are the claims true and well supported, or are they vague and/or misleading? Be sure that you evaluate the merits of the position in the message.**

It is likely that you will encounter a front group like the National Wetlands Coalition. If so, go on-line to find out what you can about the group and its sponsor. Evaluate the merits of the position in the message and the name of the group. You may find that the sponsor's name and the arguments are at cross-purposes with one another.

Control Message

Speech Anxiety Worse for Some, but Most Can Overcome It

WebMD Medical News

April 20, 2006 -- Fear of public speaking strikes some people harder -- and differently -- than others. A study shows that people who suffer most over speaking in public get more anxious as their presentation gets under way. When it's over, instead of feeling relief, they feel anxious. If public speaking scares you, you aren't alone, says Paul Witt, PhD, assistant professor of communication at Texas Christian University. "It is even scarier than rattlesnakes," Witt tells WebMD. "The idea of making a presentation in public is the No. 1 fear of people in the U.S."

Witt and colleagues studied 48 male and 48 female students enrolled in a beginning public speaking class. The speakers underwent several tests before and after making a five-minute assigned presentation. The tests included a self-report inventory of gastrointestinal symptoms. To nobody's surprise, people who are anxious by nature -- what psychologists call high-trait anxiety -- had the most symptoms when speaking in public. What was surprising was the anxiety pattern. People with low-trait anxiety get nervous before speaking but begin to relax once they get started. People with high-trait anxiety, however, are anxious when they start speaking and get more anxious as they go on." We hear this comment a lot from speakers: 'I was so nervous when I started but by the time I finished it wasn't so bad. I even wished I had more time,'" Witt says. "What happens is we have habituated -- we have gotten used to the context of public speaking."

You cannot change your traits. If you are a person with high-trait anxiety, there's no simple way to become a low-trait-anxiety person. The good news is that we can learn to win with the cards we are dealt. High-trait anxiety is a challenge but need not be a disability. Witt doesn't try to motivate people. Instead, he teaches public speaking skills.

Before speaking: Picture yourself in the classroom or in the meeting room, standing up, taking your notes to the lectern, and so on.

1. Practice going through your presentation multiple times. Practice with someone who is supportive, so you learn to succeed rather than to fail. Sensitizers focus on the little things.

2. "Through visualization get all that negative stuff out, so when the real day comes, you can focus on real issues." Witt says.

3. During your speech, deal with symptoms as they occur: Dry mouth? Hands trembling? Put them together. Voice quivering? "Pause, take a deep breath or two, and smile. It is amazing what a smile will do," Witt say. Sweating? "Forget it, nobody sees that anyway," Witt says. "Those symptoms that distract us are treatable," Witt says.

"It doesn't take a PhD to figure this out, but so many people don't -- because as sensitizers, they become so focused on their symptoms and their embarrassment in front of other people."

Appendix B: Attack Messages

Keep America Beautiful

Keep America Beautiful® Kicks Off National Great American Cleanup™

STAMFORD, Conn. - Keep America Beautiful Great American Cleanup mobilizes millions of volunteers each spring to clean, beautify and improve their communities - will kickoff nationally at the Times Square Visitors Center with the City of New York being honored for improving the quality of life of New Yorkers.

The Great American Cleanup, the nation's largest annual community based improvement program, is Keep America Beautiful's signature event. More than 2.3 million people will be volunteering 7 million hours to improve more than 15,000 communities during 30,000 events. Volunteers can take part in planned local activities or start their own activities.

"The 20th anniversary of our Great American Cleanup marks a milestone for creating and maintaining clean communities as volunteers rally together to eliminate litter, graffiti and blight that plague local environments. By showing their commitment through hands-on activities, volunteers provide individual solutions to sustaining a healthy quality of life for everyone," said G. Raymond Stanley, president of Keep America Beautiful. The organization stresses individual responsibility rather than corporate responsibility for proper disposal and clean-up efforts. "Let's stop blaming businesses and start taking personal responsibility to improve our environment," said Stanley.

KAB's stated mission is to "empower individuals to take greater responsibility for enhancing their local community environment." KAB believes that if individuals take responsibility for disposing their wrappers, packaging, and garbage, the need for restrictive regulations on business will be reduced.

The Keep American Beautiful organization believes individuals are responsible for improving their community environments, eliminating the need for burdensome and intrusive government intervention and restrictive policies on business to change their products and packaging. Our Guiding principles include promoting individual responsibility, environmental education, community partnerships (government, business, civic), and promoting volunteerism.

Keep American Beautiful provides sustainable solutions to improve physical and visual aspects of community environments so individuals can directly impact their surrounds through action.

National Wetlands Coalition

National Wetlands Coalition– Preserving the Nations Wetland

Burlington, Massachusetts, - The National Wetlands Coalition (“Coalition”) lead by Chairman Leighton Steward, is a diverse group of private and public sector entities who joined together to advocate balanced federal policy for conserving and regulating the Nation’s wetlands. Members of the Coalition own or manage wetlands and other “waters of the United States” that are subject to strict burdensome and unnecessary federal jurisdiction.

The mission of The Coalition is to work with the Congress for legislative reform of and to provide more work permits in federal wetlands. In past Congresses, the Coalition was instrumental in the development and support of the Comprehensive Wetlands Conservation and Management Act and the Clean Water Act Amendments of 1995.

The Coalition believes in several key elements for a reasonable national wetlands program. For example, The Coalition supports the national goal of “no net loss” of wetlands measured in terms of the functions and value of wetlands. As long as the same amount of wetlands area is preserved developers should not be subject to such constricting regulations.

The Coalition supports the establishment of tax incentives to encourage the donation of wetlands for conservation. If people are willing to donate parts of their land to conservation, businesses should be aloud to develop on other wetlands areas. But as usual the government just doesn’t understand how to promote

economic growth. In order to successfully restore and protect the nation's valuable wetlands, economic incentives should be used to stimulate and reward private sector action rather than always placing the burden on businesses.

Landowners, concerned citizens and the National Wetlands Coalition agree that wetlands are critical to preserving habitats and ecosystems and must be protected. However, the federal government, while seeking to protect wetlands, imposes burdensome and ineffective regulations on private property and these tough and restrictive regulations should be eased to promote growth.

Appendix C: Motivational Booster

Many people make decisions based on incomplete or even deceptive information. As a result, many people make poor decisions. Poor decisions lead consumers to purchase products or citizens to support regulations that are useless or dangerous. Other times it leads them to elect politicians they think will represent them, but who don't actually support their views on the issues. You don't have to make poor decisions and in fact, good decision-making is a quality many employers are looking for. One of the best ways to avoid making errors is to think carefully about the information that you read. At the end of your participation in the study today, the researcher will personally ask you about the types of information you used to draw the correct conclusion about the information. (129)

Appendix D: Wetlands Protection Survey

Phase One

Please print your first and last name:

Please type in the name of course instructor and course number you would like to receive credit for:

Please type in your email address so that we can remind you to participate in Phase II and Phase III of the study.

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

Age: _____

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

Attitude Measures

Here are several statements about three issues. For each statement, please circle the number that best expresses your level of agreement with the statement.

What is your overall attitude toward creating mandatory recycling legislation?

Negative	1	2	3	4	5	6	7	Positive
Bad	1	2	3	4	5	6	7	Good
Unacceptable	1	2	3	4	5	6	7	Acceptable

Foolish	1	2	3	4	5	6	7	Wise
Wrong	1	2	3	4	5	6	7	Right
Unfavorable	1	2	3	4	5	6	7	Favorable

Involvement Measures

How important is the issue of creating mandatory recycling legislation?

Unimportant	1	2	3	4	5	6	7	Important
Of no concern	1	2	3	4	5	6	7	Of much concern
Means nothing	1	2	3	4	5	6	7	Means a lot
Doesn't matter	1	2	3	4	5	6	7	Matters to me
Insignificant	1	2	3	4	5	6	7	Significant
Irrelevant	1	2	3	4	5	6	7	Relevant

Attitude Measures

What is your overall attitude about preserving the National Wetlands (preserving the habitats of fish and wildlife in coastal wetlands regions?)

Negative	1	2	3	4	5	6	7	Positive
Bad	1	2	3	4	5	6	7	Good
Unacceptable	1	2	3	4	5	6	7	Acceptable
Foolish	1	2	3	4	5	6	7	Wise
Wrong	1	2	3	4	5	6	7	Right
Unfavorable	1	2	3	4	5	6	7	Favorable

Involvement Measures

How important is the issue of preserving the National Wetlands (preserving the habitats of fish and wildlife in coastal wetlands regions?)

Unimportant	1	2	3	4	5	6	7	Important
Of no concern	1	2	3	4	5	6	7	Of much concern
Means nothing	1	2	3	4	5	6	7	Means a lot
Doesn't matter	1	2	3	4	5	6	7	Matters to me
Insignificant	1	2	3	4	5	6	7	Significant
Irrelevant	1	2	3	4	5	6	7	Relevant

Phase Two

Please read the following message before proceeding to the next session.

Beware of Groups that Seek to Mislead

As a responsible citizen, you have probably drawn some conclusions about issues such as how best to preserve America's wetlands, how to keep our communities clean by reducing litter, and how to achieve energy independence without damaging the environment. Controversial issues have prompted politicians, businesses, and interest groups to encourage the public to side with them. Engaging in informed debates is part of the democratic process and everyone has a right to weigh in on the issues.

Knowing their positions are unpopular with mainstream Americans, some corporations and special interest groups choose less honorable tactics. Many organizations create front groups, which are groups with names that suggest values that most people can embrace, but are actually working to undermine the very ideals associated with names. They have perfected the art of deceptive messages that discourage listeners from scrutinizing the real goals of the group. Research

confirms their efforts are quite persuasive and as a result, they may cause even you to rethink your positions based on deceptive information.

The National Wetlands Coalition (NWC) is one such group. Most people with pro-environmental attitudes would think the NWC represents their values. In reality, the NWC, funded largely by oil and gas companies launched campaigns to erode legislative attempts to shield Federally protected wetlands because they slowed corporate profits. Despite their name, NWC's purpose is to prevent restrictions for business in nationally protected wetlands habitats. In order to address environmental sustainability, we all need to do our part. Legislation is needed to ensure that development firms and oil and gas companies do their part by adopting more environmentally sustainable practices because as we can see, they won't adopt these practices on their own. The NWC's arguments are so crafty that they can deceive people just like you. Their messages potentially have an enormous impact on public opinion about environmentally sustainable business practices. Front groups deceive many people but if you understand their tactics, you can avoid being deceived. Here is a list of front group tactics.

1. Front groups try to excuse corporations from their responsibility to make safe products. They do this by emphasizing that individuals, not corporations should assume responsibility for the negative effects of their products.

2. Front groups select names that sound positive, but are misleading. It is easy to assume that a group with the name "National Wetlands Coalition,"

would pursue all options to keep communities beautiful. However, they should be called “National Drill and Develop the Wetlands Coalition.”

3. Front groups use arguments that sound good, but are vague and often unclear. Sometimes statements are misleading because of what they omit who exactly funds them.

It is likely that you will encounter a front group like the National Wetlands Coalition. If so, go on-line to find out what you can about the group and its sponsor. Evaluate the merits of the position in the message and the name of the group. You may find that the sponsor’s name and the arguments are at cross-purposes with one another.

Message Recall

Please take as much time as you need to identify all the information you can about the message they just read.

Threat Measures

The next section is designed to help us understand how you feel about the idea that DESPITE YOUR OPINION about the benefits of preserving the National Wetlands (preserving the habitats of fish and wildlife in coastal wetlands regions), 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 RETIHNK YOUR POSITION. I find THIS POSSIBILITY to be:

1. Not dangerous 1 2 3 4 5 6 7 Dangerous

2. Non-threatening	1	2	3	4	5	6	7	Threatening
3. Calm	1	2	3	4	5	6	7	Anxious
4. Not scary	1	2	3	4	5	6	7	Scary
5. Not harmful	1	2	3	4	5	6	7	Harmful
6. Not risky	1	2	3	4	5	6	7	Risky

Anger Measure

This section is designed to help us understand how you feel about the idea that **DESPITE YOUR OPINION** about the benefits of preserving the National Wetlands (preserving the habitats of fish and wildlife in coastal wetlands regions), **THERE IS THE POSSIBILITY YOU MAY** be targeted by a front-group dedicated to deceiving you into **RETHINKING YOUR POSITION**.

1. I feel angry that a front group will try to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

2. I feel irritated that a front group will try to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

3. I feel annoyed that a front group will try to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

4. I feel aggravated that a front group will try to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

Counterarguing Measures

Think about the issue of (environmental conservation like) limiting national wetlands development. Write down arguments you think you might hear that will

challenge your position about environmental conservation. Write down arguments you would make in response to the challenges you just listed. Now that you have written down arguments on both sides of this issue, please rate the quality of each argument on a scale of 1 (meaning a very poor quality argument) and a 7 (meaning a very strong argument).

Cognitive Response Measures

You will now have three minutes to write down all your thoughts about front groups and front group tactics. (The responses will be coded for relevance and categorized as attribute related or as source related).

Sufficiency Principle Measures

Please indicate how confident you are in your ability to identify front group stealth messages if you encountered them.

Not at all confident 1 2 3 4 5 6 7 Very confident

Please indicate how confident you would like to be in your ability identify front groups stealth messages if you encounter them.

Not at all confident 1 2 3 4 5 6 7 Very confident

Phase Three

Accuracy Motivational Booster

Many people make decisions based on incomplete or even deceptive information. As a result, many people make poor decisions. Poor decisions lead consumers to purchase products or citizens to support regulations that are useless or dangerous. Other times it leads them to elect politicians they think will represent

them, but who don't actually support their views on the issues. You don't have to make poor decisions and in fact, good decision-making is a quality many employers are looking for. One of the best ways to avoid making errors is to think carefully about the information that you read. At the end of your participation in the study today, the researcher will personally ask you about the types of information you used to draw the correct conclusion about the information. (129)

Sufficiency Principle Measures

Please indicate how confident you are in your ability to identify front group stealth messages if you encountered them.

Not at all confident 1 2 3 4 5 6 7 Very confident

Please indicate how confident you would like to be in your ability identify front groups stealth messages if you encounter them.

Not at all confident 1 2 3 4 5 6 7 Very confident

Accuracy Motivation

Please indicate to what extent it is important to you to accurately identify a front group.

Not at all important 1 2 3 4 5 6 7 Very Important

Please indicate to what extent is it relevant to you to know if a message you hear or read is from a front group.

Very relevant 1 2 3 4 5 6 7 Not at all relevant

Please indicate to what extent does it matter to you that you are able to identify front groups when you encounter them?

Does not matter 1 2 3 4 5 6 7 Matters a lot

Attack Messages: National Wetlands Coalition National Wetlands Coalition – Preserving the Nations Wetland

Burlington, Massachusetts, - The National Wetlands Coalition (“Coalition”) lead by Chairman Leighton Steward, is a diverse group of private and public sector entities who joined together to advocate balanced federal policy for conserving and regulating the Nation’s wetlands. Members of the Coalition own or manage wetlands and other “waters of the United States” that are subject to strict burdensome and unnecessary federal jurisdiction.

The mission of The Coalition is to work with the Congress for legislative reform of and to provide more work permits in federal wetlands. In past Congresses, the Coalition was instrumental in the development and support of the Comprehensive Wetlands Conservation and Management Act and the Clean Water Act Amendments of 1995.

The Coalition believes in several key elements for a reasonable national wetlands program. For example, The Coalition supports the national goal of “no net loss” of wetlands measured in terms of the functions and value of wetlands. As long as the same amount of wetlands area is preserved developers should not be subject to such constricting regulations.

The Coalition supports the establishment of tax incentives to encourage the donation of wetlands for conservation. If people are willing to donate parts of their land to conservation, businesses should be allowed to develop on other wetlands areas. But as usual the government just doesn't understand how to promote economic growth. In order to successfully restore and protect the nation's valuable wetlands, economic incentives should be used to stimulate and reward private sector action rather than always placing the burden on businesses.

Landowners, concerned citizens and the National Wetlands Coalition agree that wetlands are critical to preserving habitats and ecosystems and must be protected. However, the federal government, while seeking to protect wetlands, imposes burdensome and ineffective regulations on private property and these tough and restrictive regulations should be eased to promote growth.

Attitude and Involvement Reassessment

What is your overall attitude about preserving the National Wetlands (preserving the habitats of fish and wildlife in coastal wetlands regions)?

Negative	1	2	3	4	5	6	7	Positive
Bad	1	2	3	4	5	6	7	Good
Unacceptable	1	2	3	4	5	6	7	Acceptable
Foolish	1	2	3	4	5	6	7	Wise
Wrong	1	2	3	4	5	6	7	Right
Unfavorable	1	2	3	4	5	6	7	Favorable

Involvement Measures

How important is the issue of preserving the National Wetlands (preserving the habitats of fish and wildlife in coastal wetlands regions?)

Unimportant	1	2	3	4	5	6	7	Important
Of no concern	1	2	3	4	5	6	7	Of much concern
Means nothing	1	2	3	4	5	6	7	Means a lot
Doesn't matter	1	2	3	4	5	6	7	Matters to me
Insignificant	1	2	3	4	5	6	7	Significant
Irrelevant	1	2	3	4	5	6	7	Relevant

Anger Measures

Here are several statements about *National Wetlands Coalition*. For each statement, please circle the number that best expresses your level of agreement with the statement.

4. After reading the Public Relations brief released by National Wetlands Coalition, I feel angry because I believe they are trying to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

5. After reading the Public Relations brief released by National Wetlands Coalition, I feel irritated because I believe they are trying to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

6. After reading the Public Relations brief released by National Wetlands Coalition, I feel annoyed because I believe they are trying to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

7. After reading the Public Relations brief released by National Wetlands Coalition, I feel aggravated because I believe they are trying to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

Front Group Source Credibility Measures

Here are several statements about *National Wetlands Coalition*. For each statement, please circle the number that best expresses your level of agreement with the statement.

National Wetlands Coalition is

Reliable 1 2 3 4 5 6 7 unreliable

Uninformed 1 2 3 4 5 6 7 informed

Unqualified 1 2 3 4 5 6 7 qualified

Intelligent 1 2 3 4 5 6 7 unintelligent

Valuable 1 2 3 4 5 6 7 worthless

Inexpert 1 2 3 4 5 6 7 expert

Dishonest 1 2 3 4 5 6 7 honest

Unfriendly 1 2 3 4 5 6 7 friendly

Pleasant 1 2 3 4 5 6 7 unpleasant

Selfish 1 2 3 4 5 6 7 unselfish

Awful 1 2 3 4 5 6 7 nice

Virtuous 1 2 3 4 5 6 7 sinful

Cares about me 1 2 3 4 5 6 7 Doesn't care about me

Has my interest at heart 1 2 3 4 5 6 7 doesn't have my interests at heart

Focused only on themselves and the companies they serve

1 2 3 4 5 6 7

Not only focused on themselves and the companies they serve

Unconcerned with me	1	2	3	4	5	6	7	concerned with me
Insensitive	1	2	3	4	5	6	7	sensitive
Empathetic	1	2	3	4	5	6	7	apathetic
Understanding	1	2	3	4	5	6	7	not understanding
Unresponsive	1	2	3	4	5	6	7	responsive
Understands how I feel	1	2	3	4	5	6	7	Doesn't understand how I feel
Doesn't understand how I think	1	2	3	4	5	6	7	understand how I think

Cognitive Response Measures

You will now have three minutes to write down all your thoughts about the message you just read. (The responses will be coded for relevance and categorized as attribute related or as source related).

Accuracy in Front Group Identification

22. Is the National Wetlands Coalition a front group?

Yes _____ No _____

How confident are you that you made the correct judgment about the NWC is a front group?

Not at all confident 1 2 3 4 5 6 7 Completely confident

If you answered No, please continue to question _____

You have indicated that the National Wetlands Coalition is a front group. Please highlight portions of the NWC message that leads you to believe they are a front group.

Now that you have highlighted portions of the NWC message, please explain why you believe the highlighted portion of the message provides a clue that the NWC is a front group.

Perceived Deceptiveness Measures

Please evaluate the truthfulness of the message presented by the National Wetlands Coalition.

Completely Deceptive 1 2 3 4 5 6 7 Completely Truthful

Unintended Inoculation Effects: Grassroots or Astroturf Measures

In this section you will be asked to determine whether the groups below are comprised of grassroots organizations or front groups.

Family Research Council

Since 1983, Family Research Council (FRC) has advanced faith, family and freedom in public policy and public opinion. FRC's team of seasoned experts promotes these core values through policy research, public education on Capitol Hill and in the media, and grassroots mobilization. We review legislation, meet with policymakers, publish books and pamphlets, build coalitions, testify before Congress, and maintain a powerful presence in print and broadcast media. Through our outreach to pastors, we equip churches to transform the culture.

26. Is the Family Research Council a front group?

Yes _____ No _____

27. How confident are you that you that the Family Research Council is a front group?

28. In the space bellow, please explain why you determined that the Family Research Council is a front group or why you determined that it was not a front group.

The Sierra Club

Since 1892, the Sierra Club has been working to protect communities, wild places, and the planet itself. We are the largest and most influential grassroots environmental organization in the United States. And our founder, John Muir, appears on the back of the California quarter.

26. Is the Sierra Club a front group?

Yes _____ No _____

27. How confident are you that you that the Sierra Club is a front group?

28. In the space bellow, please explain why you determined that the Sierra Club is a front group or why you determined that it was not a front group.

Center for Consumer Freedom

Founded in 1996, the Center for Consumer Freedom is a nonprofit organization devoted to promoting personal responsibility and protecting consumer choices. We believe that the consumer is King. And Queen. A growing cabal of activists has meddled in Americans' lives in recent years. They include self-anointed "food police," health campaigners, trial lawyers, personal-finance do-gooders, animal-rights misanthropes, and meddling bureaucrats. Their common denominator? They all claim to know "what's best for you." In reality, they're eroding our basic freedoms—the freedom to buy

what we want, eat what we want, drink what we want, and raise our children as we see fit. When they push ordinary Americans around, we're here to push back.

26. Is the Center for Consumer Freedom a front group?

Yes _____ No _____

27. How confident are you that you that the Center for Consumer Freedom is a front group?

28. In the space bellow, please explain why you determined that the Center for Consumer Freedom is a front group or why you determined that it was not a front group.

Appendix E: Recycling Legislation Survey

Phase One

Please print your first and last name:

Please type in the name of course instructor and course number you would like to receive credit for:

Please type in the email address that you would like us to contact you to remind you to complete Phase II and Phase III of the study.

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

Age: _____

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

Attitude Measures

Here are several statements about two issues. For each statement, please circle the number that best expresses your level of agreement with the statement.

What is your overall attitude toward creating mandatory recycling legislation for corporations?

Negative	1	2	3	4	5	6	7	Positive
Bad	1	2	3	4	5	6	7	Good
Unacceptable	1	2	3	4	5	6	7	Acceptable

Foolish	1	2	3	4	5	6	7	Wise
Wrong	1	2	3	4	5	6	7	Right
Unfavorable	1	2	3	4	5	6	7	Favorable

Involvement Measures

How important is the issue of creating mandatory recycling legislation for corporations?

Unimportant	1	2	3	4	5	6	7	Important
Of no concern	1	2	3	4	5	6	7	Of much concern
Means nothing	1	2	3	4	5	6	7	Means a lot
Doesn't matter	1	2	3	4	5	6	7	Matters to me
Insignificant	1	2	3	4	5	6	7	Significant
Irrelevant	1	2	3	4	5	6	7	Relevant

Attitude Measures

What is your overall attitude about preserving the National Wetlands (preserving the habitats of fish and wildlife in coastal wetlands regions)?

Negative	1	2	3	4	5	6	7	Positive
Bad	1	2	3	4	5	6	7	Good
Unacceptable	1	2	3	4	5	6	7	Acceptable
Foolish	1	2	3	4	5	6	7	Wise
Wrong	1	2	3	4	5	6	7	Right
Unfavorable	1	2	3	4	5	6	7	Favorable

Involvement Measures

How important is the issue of preserving the National Wetlands (preserving the habitats of fish and wildlife in coastal wetlands regions?)

Unimportant	1	2	3	4	5	6	7	Important
Of no concern	1	2	3	4	5	6	7	Of much concern
Means nothing	1	2	3	4	5	6	7	Means a lot
Doesn't matter	1	2	3	4	5	6	7	Matters to me
Insignificant	1	2	3	4	5	6	7	Significant
Irrelevant	1	2	3	4	5	6	7	Relevant

Phase Two

Please read the following message before proceeding to the next session.

Beware of Groups that Seek to Mislead

As a responsible citizen, you have probably drawn some conclusions about issues such as how best to preserve America's wetlands, how to keep our communities clean by reducing litter, and how to achieve energy independence without damaging the environment. Controversial issues have prompted politicians, businesses, and interest groups to encourage the public to side with them. Engaging in informed debates is part of the democratic process and everyone has a right to weigh in on the issues.

Knowing their positions are unpopular with mainstream Americans, some corporations and special interest groups choose less honorable tactics. Many

organizations create front groups, which are groups with names that suggest values that most people can embrace, but are actually working to undermine the very ideals associated with names. They have perfected the art of deceptive messages that discourage listeners from scrutinizing the real goals of the group. Research confirms their efforts are quite persuasive and as a result, they may cause even you to rethink your positions based on deceptive information.

Keep America Beautiful (KAB), is one such front group. Most people would think KAB was an organization that represents their values. In reality, KAB, funded largely by tobacco companies, launched campaigns around the country promoting individual responsibility for litter removal while simultaneously derailing any regulations that would force corporations to make environmentally friendly products and packaging. Clearly, we need to do our part, however corporations should also do their part creating more environmentally friendly products and packaging. KAB arguments are so compelling that without careful scrutiny of their message, they can win over people just like you, therefore their messages have an enormous impact on public opinion about cigarette and other litter control and removal. Their message sounds positive, but it leaves you on the hook to pay for and to clean up the environment, while tobacco companies do nothing.

Front groups deceive many people but if you understand their tactics, you can avoid being deceived. Here is a list of front group tactics.

1. Front groups try to excuse corporations from their responsibility to make safe products. They do this by emphasizing that individuals, not corporations should assume responsibility for the negative effects of their products.

2. Front groups select names that sound positive, but are misleading. It is easy to assume that a group with the name “Keep America Beautiful,” would pursue all options to keep communities beautiful. However, they should be called “Keep America Beautiful as Long as It Doesn’t Require Corporate Change.”

3. Front groups use arguments that sound good, but are vague and often unclear. Sometimes statements are misleading because of what they omit who exactly funds them.

It is likely that you will encounter a front group like Keep American Beautiful. If so, go on-line to find out what you can about the group and its sponsor. Evaluate the merits of the position in the message and the name of the group. You may find that the sponsor’s name and the arguments are at cross-purposes with one another.

Message Recall

Please take as much time as you need to identify all the information you can about the message they just read.

Threat Measures

The next section is designed to help us understand how you feel about the idea that DESPITE YOUR OPINION ON mandatory bottle and can recycling legislation, 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 RETIHK YOUR POSITION. I find THIS POSSIBILITY to be:

- 1. Not dangerous 1 2 3 4 5 6 7 Dangerous
- 2. Non-threatening 1 2 3 4 5 6 7 Threatening
- 3. Calm 1 2 3 4 5 6 7 Anxious
- 4. Not scary 1 2 3 4 5 6 7 Scary
- 5. Not harmful 1 2 3 4 5 6 7 Harmful
- 6. Not risky 1 2 3 4 5 6 7 Risky

Anger Measures

This section is designed to help us understand how you feel about the idea that DESPITE YOUR OPINION ON mandatory bottle and can recycling legislation, THERE IS THE POSSIBILITY YOU MAY be targeted by a front-group dedicated to deceiving you into RETIHKING YOUR POSITION.

- 1. I feel angry that a front group would try to deceive me.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree
- 2. I feel irritated that a front group would try to deceive me.
Strongly disagree 1 2 3 4 5 6 7 Strongly agree

3. I feel annoyed that a front group would try to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

4. I feel aggravated that a front group would try to deceive me.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree.

Counterarguing Measures

Think about the issue **mandatory bottle and can recycling legislation**. On the **left side**, write down any arguments that you can think of **AGAINST** your position **ISSUE**. On the **right side**, list your responses (thoughts and feelings) to each of the arguments (from the left side).

Think about the issue of mandatory recycling legislation. Write down arguments you think you might hear that will challenge your position about mandatory recycling. Write down arguments you would make in response to the challenges you just listed. Now that you have written down arguments on both sides of this issue, please rate the quality of each argument on a scale of 1 (meaning a very poor quality argument) and a 7 (meaning a very strong argument).

Cognitive Response Measures

You will now have three minutes to write down all your thoughts about front groups and front group tactics. (The responses will be coded for relevance and categorized as attribute related or as source related).

Sufficiency Principle Measures

Please indicate how confident you are in your ability to identify front group stealth messages if you encountered them.

Not at all confident 1 2 3 4 5 6 7 Very confident

Please indicate how confident you would like to be in your ability identify front groups stealth messages if you encounter them.

Not at all confident 1 2 3 4 5 6 7 Very confident

Phase Three

Booster Motivational Booster

Many people make decisions based on faulty, incomplete information, or even deceptive information. As a result, many people make poor decisions. These poor decisions lead consumers to purchase products that are useless or even worse, dangerous. Other times it leads them to elect politicians they think will represent them, but who don't actually support their views on the issues. You don't have to make poor decisions. One of the best ways to avoid making errors and drawing on faulty conclusions about information is to think carefully about the information that you read. At the end of this survey, you will be asked about the types of information you used to draw your conclusion about the information.

Sufficiency Principle Measures

Please indicate how confident you are in your ability to identify front group stealth messages if you encountered them.

Not at all confident 1 2 3 4 5 6 7 Very confident

Please indicate how confident you would like to be in your ability identify front groups stealth messages if you encounter them.

Not at all confident 1 2 3 4 5 6 7 Very confident

Accuracy Motivation

Please indicate to what extent it is important to you to accurately identify a front group.

Not at all important 1 2 3 4 5 6 7 Very Important

Please indicate to what extent is it relevant to you to know if a message you hear or read is from a front group.

Very relevant 1 2 3 4 5 6 7 Not at all relevant

Please indicate to what extent does it matter to you that you are able to identify front groups when you encounter them?

Does not matter 1 2 3 4 5 6 7 Matters a lot

Keep American Beautiful Attack Message

Please read the following message before proceeding to the next session.

Keep America Beautiful® Kicks Off National Great American Cleanup™

The Great STAMFORD, Conn. - Keep America Beautiful's Great American Cleanup mobilizes millions of volunteers each spring to clean, beautify and improve their communities - will kickoff nationally at the Times Square Visitors Center with the City of New York being honored for improving the quality of life of New Yorkers. American Cleanup, the nation's largest annual community based improvement program, is Keep America Beautiful's signature event. More than 2.3 million people will be volunteering 7 million hours to improve more than 15,000 communities during 30,000 events. Volunteers can take part in planned local activities or start their own activities.

"The 20th anniversary of our Great American Cleanup marks a milestone for creating and maintaining clean communities as volunteers rally together to eliminate litter, graffiti and blight that plague local environments. By showing their commitment through hands-on activities, volunteers provide individual solutions to sustaining a healthy quality of life for everyone," said G. Raymond Stanley, president of Keep America Beautiful. The organization stresses individual responsibility rather than corporate responsibility for proper disposal and clean-up efforts. "Let's stop blaming businesses and start taking personal responsibility to improve our environment," said Stanley.

KAB's stated mission is to "empower individuals to take greater responsibility for enhancing their local community environment." KAB believes that if individuals take responsibility for disposing their wrappers, packaging, and garbage, the need for restrictive regulations on business will be reduced.

The Keep American Beautiful organization believes individuals are responsible for improving their community environments, eliminating the need for burdensome and intrusive government intervention and restrictive policies on business to change their products and packaging. Our Guiding principles include promoting individual responsibility, environmental education, community partnerships (government, business, civic), and promoting volunteerism.

Keep American Beautiful provides sustainable solutions to improve physical and visual aspects of community environments so individuals can directly impact their surrounds through action.

Attitude Reassessment Measures

Here are several statements about three issues. For each statement, please circle the number that best expresses your level of agreement with the statement.

1. Overall attitude toward mandatory bottle and can recycling legislation.

Negative	1	2	3	4	5	6	7	Positive
Bad	1	2	3	4	5	6	7	Good
Unacceptable	1	2	3	4	5	6	7	Acceptable
Foolish	1	2	3	4	5	6	7	Wise
Wrong	1	2	3	4	5	6	7	Right
Unfavorable	1	2	3	4	5	6	7	Favorable

2. How important is the issue of mandatory bottle and can recycling

legislation?

Unimportant	1	2	3	4	5	6	7	Important
Of no concern	1	2	3	4	5	6	7	Of much concern
Means nothing	1	2	3	4	5	6	7	Means a lot
Doesn't matter	1	2	3	4	5	6	7	Matters to me
Insignificant	1	2	3	4	5	6	7	Significant
Irrelevant	1	2	3	4	5	6	7	Relevant

Anger Measures

Here are several statements about *Keep America Beautiful*. For each statement, please circle the number that best expresses your level of agreement with the statement.

4. After reading the Public Relations brief released by Keep America Beautiful, I feel angry.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

5. After reading the Public Relations brief released by Keep America Beautiful, I feel irritated.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

6. After reading the Public Relations brief released by Keep America Beautiful, I feel annoyed.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

7. After reading the Public Relations brief released by Keep America Beautiful, I feel aggravated.

Strongly disagree 1 2 3 4 5 6 7 Strongly agree

Front Group Source Credibility Measures

Here are several statements about *Keep America Beautiful*. For each statement, please circle the number that best expresses your level of agreement with the statement.

Keep America Beautiful is

Reliable 1 2 3 4 5 6 7 unreliable

Uniformed 1 2 3 4 5 6 7 informed

Unqualified 1 2 3 4 5 6 7 qualified

Intelligent 1 2 3 4 5 6 7 unintelligent

Valuable 1 2 3 4 5 6 7 worthless

Inexpert 1 2 3 4 5 6 7 expert

Dishonest 1 2 3 4 5 6 7 honest

Unfriendly 1 2 3 4 5 6 7 friendly

Pleasant 1 2 3 4 5 6 7 unpleasant

Selfish 1 2 3 4 5 6 7 unselfish

Awful 1 2 3 4 5 6 7 nice

Virtuous 1 2 3 4 5 6 7 sinful

Cares about me 1 2 3 4 5 6 7 Doesn't care about me

Has my interest at heart 1 2 3 4 5 6 7 doesn't have my interests at heart

Focused only on themselves and the companies they serve

1 2 3 4 5 6 7

Not only focused on themselves and the companies they serve

Unconcerned with me 1 2 3 4 5 6 7 concerned with me

Insensitive 1 2 3 4 5 6 7 sensitive

Empathetic 1 2 3 4 5 6 7 apathetic

Understanding 1 2 3 4 5 6 7 not understanding

Unresponsive 1 2 3 4 5 6 7 responsive

Understands how I feel 1 2 3 4 5 6 7 Doesn't understand how I feel

Doesn't understand how I think 1 2 3 4 5 6 7 understand how I think

Cognitive Response Measures

You will now have three minutes to write down all your thoughts about the message you just read. (The responses will be coded for relevance and categorized as attribute related or as source related).

Accuracy in Front Group Identification

Is Keep America Beautiful a front group?

Yes _____ No _____

How confident are you that you made the correct judgment that Keep America Beautiful is a front group?

Not at all confident 1 100 Completely confident

If you answered No, please continue to the next question.

You have indicated that the Keep American Beautiful is a front group. Please highlight portions of the NWC message that leads you to believe they are a front group.

Now that you have highlighted portions of the Keep America Beautiful message, please explain why you believe the highlighted portion of the message provides a clue that the NWC is a front group.

Perceived Deceptiveness Measures

Please evaluate the truthfulness of the message presented by Keep America Beautiful.

Completely Deceptive 1 2 3 4 5 6 7 Completely Truthful

Unintended Inoculation Effects: Grassroots or Astroturf Measures

In this section you will be asked to determine whether the groups below are comprised of grassroots organizations or front groups.

Family Research Council

Since 1983, Family Research Council (FRC) has advanced faith, family and freedom in public policy and public opinion. FRC's team of seasoned experts promotes these core values through policy research, public education on Capitol Hill and in the media, and grassroots mobilization. We review legislation, meet

with policymakers, publish books and pamphlets, build coalitions, testify before Congress, and maintain a powerful presence in print and broadcast media. Through our outreach to pastors, we equip churches to transform the culture.

26. Is the Family Research Council a front group?

Yes _____ No _____

27. How confident are you that you that the Family Research Council is a front group?

28. In the space bellow, please explain why you determined that the Family Research Council is a front group or why you determined that it was not a front group.

The Sierra Club

Since 1892, the Sierra Club has been working to protect communities, wild places, and the planet itself. We are the largest and most influential grassroots environmental organization in the United States. And our founder, John Muir, appears on the back of the California quarter.

26. Is the Sierra Club a front group?

Yes _____ No _____

27. How confident are you that you that the Sierra Club is a front group?

28. In the space bellow, please explain why you determined that the Sierra Club is a front group or why you determined that it was not a front group.

Center for Consumer Freedom

Founded in 1996, the Center for Consumer Freedom is a nonprofit

organization devoted to promoting personal responsibility and protecting consumer choices. We believe that the consumer is King. And Queen. A growing cabal of activists has meddled in Americans' lives in recent years. They include self-anointed "food police," health campaigners, trial lawyers, personal-finance do-gooders, animal-rights misanthropes, and meddling bureaucrats. Their common denominator? They all claim to know "what's best for you." In reality, they're eroding our basic freedoms—the freedom to buy what we want, eat what we want, drink what we want, and raise our children as we see fit. When they push ordinary Americans around, we're here to push back.

26. Is the Center for Consumer Freedom a front group?

Yes _____ No _____

27. How confident are you that you that the Center for Consumer Freedom is a front group?

28. In the space bellow, please explain why you determined that the Center for Consumer Freedom is a front group or why you determined that it was not a front group.