LAUGHTER VS. FEAR:
THE ROLE OF POLITICAL HUMOR IN COMBATING FEAR APPEALS

by

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A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Arts in Communication

Spring 2012

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ACKNOWLEDGMENTS

Drs. Lindsay Hoffman, Scott Caplan, and Dannagal Young, for recognizing my potential and forcing me to realize it, as well.
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This study explores political humor’s role in combating the effects of televised fear appeals. While late-night political humor grows in popularity, so does the usage of political fear appeals. Although recent research has supported the idea that programs like The Daily Show and Colbert Report are associated with increased political knowledge and participation (Brewer and Cao, 2006; Baum, 2003a), studies have failed to explore if and how political humor can interrupt and counteract the negative effects of fear appeals. The results of an online experiment indicate that humor does, in fact, lessen the amount of fear felt after viewing a fear appeal, but the specific content of the humorous message does not seem to play a sizable role. In comparison to fear appeals, individuals like the makers of humorous messages better, show more positive attitudes towards humorous messages, perceive higher credibility in the makers to of the humorous stimuli, and perceive greater argument quality in humorous messages. The results also lend support to the discounting cue hypothesis. Implications for political humor research are discussed.
Chapter 1
REVIEW OF LITERATURE

Perhaps the most commonly remembered and referenced fear appeal in recent American history was launched by Lyndon Johnson’s 1964 presidential campaign in an attempt to discredit Barry Goldwater’s stance on the use of nuclear weapons. In the television commercial, a young girl is shown in a field, counting as she plucks the petals from a daisy. Suddenly an authoritative, adult male’s voice can be heard counting down until he reaches “zero” at which point a nuclear bomb explosion is shown. Then the viewer is reminded to vote for Johnson in the upcoming election. The setting, young girl, voice-over, and explosion all “clearly sought to evoke fear and anxiety” in the audience (Jerit, 2004, p. 567).

Defined by Witte (1992) as “persuasive messages designed to scare people by describing the terrible things that will happen to them if they do not do what the message recommends,” (p. 329), fear appeals are not new to the American political scene. In fact, fear appeals were present throughout the twentieth century, but they exploded in popularity just a decade ago. More specifically, Pfau (2007) explains, “in the wake of the September 11 attacks, appeals to fear have come to dominate U.S. political discourse to an extent that is unprecedented in recent history” (p. 217). Partly because of their enormous growth in popularity, researchers of political campaigns
have begun to hypothesize that fear appeals are used both intentionally and systematically in order to manipulate voters’ emotions (Ridout & Searles, 2011). In other words, political figures not only understand that fear appeals work, but they also calculate the appropriate ways, times, and places to utilize them.

Furthermore, Glassner (1999) has described a culture of fear that has developed in the United States, arguably fed by both political and economic interests and resulting in an overly frightened and misguided society. In fact, Glassner has claimed that current news outlets seem to survive on scary stories so that “no danger is too small to magnify into a national nightmare” (p. xxi). Obviously, this recent influx of fear appeal usage implies that the creators of these messages have come to realize that changes in beliefs, attitudes, and behaviors will occur when fear appeals are properly constructed and presented to consumers.

Until recently, however, researchers seemed to disagree on both the definition of “fear” and what makes a successful fear appeal. Prior to the 1990s, fear was often operationalized as simple physiological arousal (e.g., Mewborn & Rogers, 1979), worry (e.g., Sutton, 1982) and even anxiety (Witte, 1992). Obviously, this lack of consistency in definition led to various methodological problems for researchers. Lang (1984) notes that fear has been tested in a variety of manners including as a physiological event, a linguistic behavior, and even as an overt act such as a message receiver’s facial expression. With so many definitions of (and methods for) testing fear, one cannot be surprised that researchers initially failed to find uniform results. Thus, the clear value exists in Witte’s (1992) operational definition that combines both
physiological arousal and self-ratings of mood adjectives so that fear may be studied as a negatively-valenced emotion (along with a high level of arousal) caused by a significant and personally relevant threat.

Leading up to Witte’s definition and explanation of fear appeals, communication and psychology researchers had developed and discarded several unsuccessful theories. Witte & Allen (2000) explain that, in general, fear appeal theories can be categorized into three groups: drive theories, parallel response models, and subjective expected utility models. The earliest fear appeal studies utilized drive theories to explain their observations. Models such as Janis’s (1967) family-of-curves claimed that the level of fear aroused by an appeal drives a person’s motivation to act. Janis’s model developed its name at least partially from “an inverted U-shaped relationship between fear and attitude change in which a moderate amount of fear arousal was thought to produce the most attitude change” (Witte & Allen, 2000, p. 593). However, drive theories were abandoned when one of their most central claims—messages are accepted when fear is reduced—was not supported by research (e.g. Giesen & Hendrick, 1974).

In 1970, Leventhal offered the parallel response model. The model suggested that fear appeals produce two different processes—danger control and fear control. However, Leventhal never articulated when one of these processes would be produced over another, leading to the claim that the model was largely unfalsifiable (Beck & Frankel, 1981). Still, the model was able to provide vital distinctions between the emotional and cognitive processes involving fear appeals (Witte & Allen, 2000).
Almost immediately after Leventhal’s parallel response model was developed, Rogers (1975) introduced protection motivation theory, a type of subjective expected utility (SEU) model. Protection motivation theory was the first to identify the various parts of a fear appeal along with the cognitive mediators that lead to message acceptance (Witte & Allen, 2000). Unfortunately, the four components of fear appeals (severity, susceptibility, response efficacy, and self-efficacy) did not equally interact in the hypothesized way, leading to an inability to properly explain both when and how certain fear appeals fail (see Rogers, 1985).

Therefore, in 1992 Witte introduced a model that combined several of the most useful, accurate aspects of the previous theories through the formation of the extended parallel process model, or EPPM. Fundamentally, EPPM posits that a fear appeal should contain information related to four main concepts: susceptibility, severity, response efficacy, and self-efficacy (Nabi, Roskos-Ewoldsen, & Carpentier, 2008). **Severity** involves a person’s beliefs about the seriousness of a threat. (How likely is this threat to occur?) Similarly, **susceptibility** is a person’s beliefs concerning how likely he or she is to experience that threat. (Is this something that could actually happen to me?) **Response efficacy** refers to an individual’s perception of the effectiveness of the recommended response. (Will the offered solution fix the problem?) Finally, **self-efficacy** includes a person’s belief in his or her ability to carry out the recommended response to the threat. (Can I do what is being asked of me?)

As its name states, EPPM views the consumption and appraisal of a fear appeal as a process. Witte (1992) explains that at first the individual analyzes the appeal and
determines the level of threat involved. If the individual perceives a low level of threat or views the threat as trivial, then he or she maintains no motivation to process the message further. In other words, the threat is not frightening enough to matter. On the other hand, if the individual perceives a moderate or high level of threat, then fear is created. Consequently, the person continues on to the second type of process—an appraisal of efficacy. At this point, he or she determines the efficacy of both the recommended response and his or her ability to engage in that response. When both perceived threat and perceived efficacy are high, Witte explains that danger control processes are adopted. More specifically, when a person experiences substantial fear while also perceiving that the recommended response to the threat is both feasible and effective, then he or she becomes motivated to control the danger by averting the threat. When the receiver of a fear appeal is utilizing a danger control process, then he or she is responding to the danger of the situation, not the fear (Witte, 1992).

On the other hand, when an individual perceives a high level of threat but the response efficacy or self-efficacy is low, an individual will engage in fear control processes. Under these circumstances, individuals sense a strong threat but likely feel helpless and unable to protect themselves from it. The model posits that fear intensifies when a person senses high threat but is given no response to adequately handle that threat. As a result, Witte explains that the individual will be motivated to cope with that fear through maladaptive processes such as denial and avoidance. Furthermore, if no information is provided in regard to the response efficacy, Witte &
Allen (2000) have found that individuals seem to rely on past personal experiences or beliefs in order to determine efficacy.

In short, effective fear appeals are successful because they present a severe, efficacious threat to audiences. Creators of fear appeals understand that their messages can change individuals’ attitudes whether or not the creators actually understand how or why. The growing success of fear appeals can be seen in research by scholars such as Conway, Grabe, and Grieves (2007), who claim that Bill O’Reilly of FOX News has become a front-runner in cable news’ use of fear appeals with his recurring construction of a battle between good and evil in society. Instead of offering moderate alternatives, O’Reilly develops moral arguments where only one side can be correct. Such tactics are concerning for the health of American democracy. In fact, Lau and Redlawsk (1997) have argued that in order for citizens to vote correctly, they must validly connect their preferences to the policy programs and ideologies of the candidates. Deficits in basic political information and knowledge can affect the representation that is selected, and “few would disagree that more relevant political knowledge is generally better than less, especially if we demand democratically elected officials to be responsive to majority opinion” (Valentino, Hutchings, Banks, & Davis, 2008, p. 248). Furthermore, researchers have long argued that an informed, engaged citizenry that is able to discuss the country’s important issues in an open and free way is preferable (and possibly vital) for a healthy and fully functioning democracy (Dahl, 1998; Fishkin, 1991; Habermas, 1989). If citizens only consume
fear-inducing and one-sided messages, then they may be severely limiting their opportunity to obtain political knowledge and make rational political decisions.

1.1 Political Humor

However, fear appeals are not the only type of scripted messages that are on the rise in today’s world. Political comedians such as Jon Stewart and Stephen Colbert have been generating laughs for years by poking fun at a never-ending stream of political figures. In fact, the popularity of political comedians seems to be unprecedented, allowing those like Stewart and Colbert to be taken far more seriously than their predecessors (Baumgartner & Morris, 2008). Furthermore, the creative entertainment value of The Daily Show and The Colbert Report has allowed for a continual increase in the shows’ magnetism (Baum, 2003a). For instance, Brewer and Cao (2006) have noted that Stewart’s television ratings are comparable to “hard news” television options, explaining that The Daily Show “averaged 1.2 million viewers per telecast in the last 2 weeks of January 2004, a figure that placed it in the same 1 to 2 million viewers range occupied by The O’Reilly Factor and Larry King Live and ahead of Crossfire and Hardball with Chris Matthews” (p. 19).

In the most basic sense, Jon Stewart of The Daily Show easily plays the role of a “common-sense observer who humorously points out the absurd in politics” (Baumgartner & Morris, 2008, p. 623). By poking fun at the hypocrisy or irrationality of political characters, Stewart and his writers hope to create laughter towards what may otherwise be considered serious topics. As a result, Stewart’s popularity has
grown quickly, allowing him to appear on the cover of several magazines including *Time*, which has cited Stewart as one of the 100 most influential people in the world. However, Stewart is not alone in his genre. Stephen Colbert gained popularity when he performed at the White House Correspondents Dinner in 2006. Since then, viewers have watched and laughed as Colbert humorously displays an “explicit rejection of the need for facts in engaging in political debate and assessing political arguments” (Baumgartner & Morris, 2008, p. 623). Conway and his colleagues (2007) also have noted that Colbert “unabashedly pokes fun at *The O'Reilly Factor*” among other news programs and figures (p. 198).

One might assume that with such a large, growing fan base, effects of political humor on American democracy and political understanding must exist. However, initial claims involving the effects of political comedy were mixed. Interestingly, political comedians have long argued that because their jokes are based on what the public already believes, their influence on public opinion must be minimal at best (Young, 2004). In fact, Jon Stewart has stated that because a joke cannot be successful unless his audience maintains a certain level of prior knowledge about the joke’s topic, the humor is largely inconsequential (Bettag, 2000). Furthermore, when Stewart appeared on *Crossfire* in 2004, political host and pundit Tucker Carlson questioned Stewart on whether he ever asked any useful questions of candidates who appeared on *The Daily Show*. Brewer and Cao (2006) have noted that several other critics (e.g., Postman, 1985) have argued that entertainment-oriented shows can actually discourage reasoned decision making by trivializing political matters.
On the other hand, an increasing body of research has begun to show that political humor does have an effect on the knowledge, attitudes, and opinions of its consumers (e.g., Baum, 2003a, 2003b, 2005; Baumgartner & Morris, 2008; Brewer & Cao, 2006; Young, 2004, 2006). For instance, Baum (2005) has found that candidates for President can increase their likeability ratings by simply appearing on humor-based talk shows such as *The Daily Show*. Brewer and Cao (2006) have discovered that individuals who reported seeing a presidential candidate on a late-night or political comedy program display greater political knowledge, possibly contributing to the democratic process. Likewise, exposure to politically humorous programming is associated with greater political knowledge (Baum, 2003a) and more attention to politics in general (Baum, 2003b). Xenos and Becker (2009) have suggested that exposure to political comedy programs by less sophisticated comedy viewers seems to serve as a gateway for greater political attention and knowledge by that group.

While many researchers are concerned with the political and societal effects of humor, others have begun to study the actual cognitive processes that are involved when individuals consume political comedy. Young (2008) explains that two different forms of cognitive processing are present in the context of humor—humor comprehension and appreciation, and argument scrutiny. The former type of processing involves the reconciliation of competing mental scripts in order to “get” the joke. Meanwhile, argument scrutiny applies to an individual “critically challenging the underlying premise of the message arguments presented” (p. 122). In general, the
less one counterargues or scrutinizes the message, the more likely he or she will be to accept the message as true (Nabi, Moyer-Guse, & Byrne, 2007).

Beyond affecting processing ability, humor can also influence a person’s motivation to cognitively process information. More specifically, Nabi et al. (2007) have suggested that the mere perception of a message as humorous can affect how an audience member will consume and categorize that message. In fact, Nabi and her colleagues have found that individuals may discount persuasive messages that use humor because they see the information as irrelevant to their formation of attitudes and beliefs. Nevertheless, research has shown that humorous messages are no more (or less) immediately persuasive than their non-humorous counterparts (Nabi et al., 2007; Weinberger & Gulas, 1992). As such, Nabi and her colleagues have offered evidence of a sleeper effect for comedic messages, where the persuasive effect of a humorous message may seem minimal at first but increase over time. In other words, “Even though the message may have been more likely to be initially discounted as a joke, the memorable nature of the message may have encouraged respondents to think more about it over time, which can increase persuasive effect” (p. 49).

Perhaps the most over-arching concern for researchers involves how political humor may affect the health of American democracy. Nilsen (1990) has noted that political humor can hold several social functions. From the point of view of a politician, political humor can define political concepts for an audience, disarm critics, establish détente, make a point, relieve tension, and provide an alternative to confrontation. On the other side, a political critic such as Stewart or Colbert can use
humor to expose problems such as chauvinism, ineptitude, oppression, or pretentiousness. In other words, humor can do more than just entertain—it can enlighten.

1.2 Humor’s Effect on Fear

Thus, this study will attempt to identify the cognitive role humor may play in counteracting fear appeals. More specifically, I hypothesize that humorous messages will decrease the amount of fear an individual feels after consuming a fear appeal (H₁). However, the cognitive process that allows this change in the level of fear must be identified—is the specific content being discussed in the humorous message responsible for changes in mood, or is the mere perception of humor to blame (RQ₁)? Furthermore, as mentioned earlier, an individual’s simple perception of a message as humorous may affect his or her motivation to cognitively process a funny video. In other words, if the message is just a joke, then why should the individual offer it substantial attention? Nabi and her colleagues (2007) assert that individuals often discount humorous messages as simple jokes that are irrelevant to their formation of attitudes and beliefs. Likewise, Young (2008) has found that “when arguments are delivered in a humorous way, recipients are less likely to scrutinize the claims presented—particularly in a challenging or critical way” (p. 134). As such, they may be less likely to counterargue the political claims made by the creators of the humorous messages and more likely to assume that the information presented is, in fact, true. Therefore, I hypothesize that individuals will offer more cognitive
processing of a fear appeal message than they will a humorous message (H₂) but that individuals will more strongly counterargue a fear appeal than they will a humorous message (H₃). On the other hand, because of the generally more pleasant nature of humor versus fear, I hypothesize that, despite individuals’ previously held ideas about the topic of the messages being discussed, individuals will have more positive attitudes towards a humorous message than a fear appeal (H₄), will like the maker of the humorous message more than the maker of the fear appeal (H₅), will perceive more credibility in the maker of the humorous message than in the maker of the fear appeal (H₆), and will perceive greater argument quality in the humorous message than in the fear appeal (H₇).
Chapter 2

METHOD

2.1 Participants
The study included a total of 191 participants recruited from an undergraduate basic communication course at a large East Coast university. Sampling from a population of college students allowed the study to utilize a demographic that has historically dominated late-night televised political humor audiences (see Hmielowski, Holbert, & Lee, 2011; Young & Tisinger, 2006). Furthermore, the number of participants is believed to be sufficient, as an a priori power analysis displayed a necessary sample size of 177 participants. The sample included 94 males (49.2%) and 97 females (50.8%). Subjects’ ages ranged from 18 years to 55 years ($M = 19.93$, $SD = 2.91$). Republicans ($n = 71; 37.2\%$) made up the majority of the sample. Meanwhile, 62 Democrats (32.5\%) and 52 Independents (27.2\%) also participated in the study. Six subjects (3.1\%) identified themselves with none of these political groups.

2.2 Materials & Procedures
In order to generate the appropriate emotional responses, the study utilized an online experimental format. Utilizing the online statistical survey Qualtrics, the study required all individuals provide their informed consent to participate. In exchange for
their participation, individuals were offered a small amount of academic extra credit.

Within the online software, a series of videos were broken down into four groups. Individuals were randomly assigned to one of the four groups by the online software. Groups 1 \((n = 42)\), 2 \((n = 42)\), and 3 \((n = 47)\) viewed a single fear appeal followed by a single humorous video. Group 4 \((n = 60)\) acted as a control group, and witnessed one fear appeal. See Table 1 below.

Table 1.

**Experiment Explanation**

<table>
<thead>
<tr>
<th>Group</th>
<th>Fear Stimulus</th>
<th>Humor Stimulus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>National Organization for Marriage</td>
<td>The Colbert Report</td>
</tr>
<tr>
<td>2</td>
<td>Stand for Marriage Maine</td>
<td>The Daily Show</td>
</tr>
<tr>
<td>3</td>
<td>National Organization for Marriage</td>
<td>Saturday Night Live</td>
</tr>
<tr>
<td>4</td>
<td>National Organization for Marriage</td>
<td>none</td>
</tr>
<tr>
<td>5*</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

* = Group 5 acted as a control group and witnessed a 1 minute long commercial that was neither fear-inducing nor humorous.
Groups 1, 3, and 4 witnessed a fear appeal generated by the National Organization for Marriage in 2010, entitled “Gathering Storm.” The televised advertisement discussed homosexual marriage, was approximately one minute in length, and was selected for the study based on a series of factors, including: commentary, coloration, music, background, and the message’s overall perceived goal. Group 2 also viewed a fear appeal targeting homosexual marriage. Paid for by Stand for Marriage Maine, the video (“They Said”) was thirty seconds in length, and was selected for the same reasons as the formerly mentioned fear appeal.

The second video Group 1 watched was an approximately three minute long clip from The Colbert Report. In the video, Stephen Colbert directly mocked the content of the National Organization for Marriage’s fear appeal, offering a humorous “spoof” of the fear appeal’s content and design. Similarly, Group 2 watched a one and half minute segment of The Daily Show. In the clip, the host, Jon Stewart, aired a segment of the same fear appeal that was previously viewed by Group 2 followed by humorous commentary about the irrational, fearful nature of the appeal. Finally, the second video administered to Group 3 was a segment of Saturday Night Live. The skit involved an actor portraying Barack Obama in the Oval Office and lasted approximately one and half minutes. The clip humorously explained Obama’s political struggles over the course of his presidency.

A series of tests were used to measure fearful responses, attitudes, counterarguing, cognitive processing, and discounting. More specifically, a variation
of Witte’s (1994) 4-point Likert fear appeal scale was used to measure participants’ levels of fright, anxiety, discomfort, and nausea at three points within the study—before and after stimulus 1 (fear appeal) and after stimulus 2 (humor).

In order to measure participants’ attitudes towards the videos’ messages, the study utilized Nabi, Moyer-Gusee, and Byrne’s (2007) 7-point semantic differential scale that asked individuals to rate their attitudes towards the arguments from bad to good, foolish to wise, unintelligent to intelligent, negative to positive, wrong to right, and unacceptable to acceptable. Participants’ tendency to counterargue the videos’ arguments was measured after watching each video using Nabi, Moyer-Gusee, and Byrne’s (2007) 5-point Likert scale. The items required subjects to note the extent to which they agreed or disagreed with four statements: (1) I found myself actively agreeing with the maker of the message’s points, (2) I found myself actively disagreeing with the maker of the message, (3) I was looking for flaws in the maker’s arguments, and (4) It was easy to agree with the arguments made in the message. Items (1) and (4) were reversely coded so that a stronger level of agreement with the scale’s items was associated with a larger amount of counterarguing. An adaptation of Wolski & Nabi’s (2000) cognitive processing scale allowed the study to measure the levels of cognitive motivation, depth, ability, and bias involved in the subjects’ processing of the videos’ messages. Participants responded to all of the 5-point Likert scale’s items following each video. (See Appendix A.)

Meanwhile, subjects’ discounting of the humorous videos as “just a joke” was measured using a 5-point Likert scale also developed by Nabi and her colleagues.
(2007). The items included: (1) The maker of the message was joking, (2) The message was intended more to entertain than to persuade, (3) The maker of the message was serious about advancing his views in the message, and (4) It would be easy to dismiss the message as simply a joke. Item (3) was reversely coded so that agreeing with the items would be associated with a higher level of discounting.

Likewise, participants’ perceptions of argument quality, credibility, humor, and liking towards the maker of various messages were measured. More specifically, the perceived quality of the videos’ arguments was measured via Nabi and her colleagues’ (2007) 7-point semantic differential scale. Participants responded to the following adjective pairs after each video: weak/strong, bad/good, unbelievable/believable, invalid/valid, unconvincing/convincing, and false/true. Similarly, perceived source credibility used Nabi and her colleagues’ (2007) 7-point semantic differential scale, asking participants after they watched each video to evaluate the credibility of the source by selecting the corresponding point between several pairs: untrustworthy/trustworthy, unreliable/reliable, dishonest/honest, uncredible/credible, unqualified/qualified, uninformed/informed, and inexpert/expert. However, humor was only measured after participants viewed the second video. On a semantic differential scale from one to seven (Nabi, Moyer-Gusee, & Byrne, 2007), subjects were asked to assess the humorous video—not funny/funny, not amusing/amusing, not entertaining/entertaining, and not humorous/humorous. Finally, subjects rated their liking of the sources of each of the videos on a 7-point semantic differential scale (Nabi, Moyer-Gusee, & Byrne, 2007) including:
unfriendly/friendly, unlikable/likable, and unpleasant/pleasant. See Table 2 below for reliability, means, and standard deviations.
Table 2.

Means, standard deviations, and reliability of scales

<table>
<thead>
<tr>
<th>Scales</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear (base level)</td>
<td>1.50</td>
<td>.52</td>
<td>.69</td>
</tr>
<tr>
<td>Fear (after fear appeal)</td>
<td>1.60</td>
<td>.60</td>
<td>.72</td>
</tr>
<tr>
<td>Fear (after humor)</td>
<td>1.34</td>
<td>.51</td>
<td>.77</td>
</tr>
<tr>
<td>Attitude (fear)</td>
<td>3.43</td>
<td>1.71</td>
<td>.97</td>
</tr>
<tr>
<td>Attitude (humor)</td>
<td>4.34</td>
<td>1.23</td>
<td>.94</td>
</tr>
<tr>
<td>Argument Quality (fear)</td>
<td>3.53</td>
<td>1.68</td>
<td>.97</td>
</tr>
<tr>
<td>Argument Quality (humor)</td>
<td>4.22</td>
<td>1.33</td>
<td>.95</td>
</tr>
<tr>
<td>Liking (fear)</td>
<td>3.60</td>
<td>1.64</td>
<td>.97</td>
</tr>
<tr>
<td>Liking (humor)</td>
<td>5.06</td>
<td>1.52</td>
<td>.95</td>
</tr>
<tr>
<td>Credibility (fear)</td>
<td>3.88</td>
<td>1.43</td>
<td>.97</td>
</tr>
<tr>
<td>Credibility (humor)</td>
<td>4.45</td>
<td>1.26</td>
<td>.96</td>
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<td>Cognitive Processing (fear)</td>
<td>3.30</td>
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<td>.57</td>
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<td>2.76</td>
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<tr>
<td>Humor</td>
<td>4.93</td>
<td>1.74</td>
<td>.98</td>
</tr>
<tr>
<td>Discounting</td>
<td>3.29</td>
<td>.79</td>
<td>.73</td>
</tr>
</tbody>
</table>

* = α after removing fourth item from scale (“It would be easy to dismiss the message as just a joke.”)
2.3 Manipulation Check

The purpose of the first stimulus was to induce fear in participants. A scale of subjects’ base level of fear ($\alpha = .69$) provided a mean score of 1.50 ($SD = .52$). Meanwhile, a scale of participants’ fear after viewing the fear appeal ($\alpha = .72$) displayed a mean of 1.60 ($SD = .60$). A paired-samples $t$-test was conducted to evaluate the impact of the first stimulus on the participants’ overall level of fear. There was a statistically significant increase in levels of fear between Time 1 and Time 2, $t (190) = -2.49, p < .05$. The mean increase in scores was .10 with a 95% confidence interval ranging from -.18 to -.02. The eta squared statistic (.03) indicated a small effect size.

The second stimulus was intended to be humorous in nature. Thus, the participants’ perception of humor in the videos needed to be evaluated. All of the measures created a reliable scale ($\alpha = .98$). Furthermore, on a scale from 1 to 7, the subjects displayed a mean score of 4.93 ($SD = 1.61$). A one-sample $t$-test displayed a perception of humor that was statistically higher than the neutral score of 4, $t (130) = 6.14, p < .05$.

An additional control group (Group 5) of 27 participants was utilized to assure that the act of asking participants about their moods was not causing unintended effects. In other words, does asking a participant about his or her level of fear actually make him or her more fearful? Utilizing a 4-point Likert scale to measure overall levels of fear, individuals were asked to rate a set of terms based on the extent to which they accurately described the participants’ moods. The list of adjectives
included: frightful, anxious, uncomfortable, nauseous, startled, shocked, terrified, scared, and alarmed. In addition, a semantic differential scale from one to seven was used to measure the extent to which the participants felt the following humorous adjectives: not funny/funny, not amused/amused, not humorous/humorous, not comical/comical, and not hilarious/hilarious. Next, they were asked to watch a one-minute advertisement for the Chevrolet Impala. The advertisement is part of the “Chevy Runs Deep” campaign and includes the capture of a father’s true emotions when he discovers that his sons have found and refurbished an antique Chevrolet Impala that he once owned. Following the viewing of the video, participants responded to the same measures previously listed.

The measures for humor produced a reliable scale at both Time 1 ($M = 3.99; SD = 1.83; \alpha = .98$) and Time 2 ($M = 3.98; SD = 1.49; \alpha = .93$). A paired samples $t$–test was conducted to evaluate the video’s impact on the participants’ overall feeling of humor. As expected, there was no statistically significant difference between responses at Time 1 compared to Time 2, $t(26) = .048, p = .99$. The mean difference in level of humor was .01 with a 95% confidence interval ranging from -.51 to .53.

The first set of fear adjectives produced a reliable scale ($\alpha = .88$) along with a base level of fear ($M = 1.37; SD = .44$). A scale of the same measures at time two ($M = 1.21; SD = .31$) also created a reliable scale ($\alpha = .75$). A paired samples $t$–test evaluated the video’s impact on participants’ fear levels. There was a statistically significant difference between responses at Time 1 compared to Time 2, $t(26) = 3.02,$
$p < .05$. The mean decrease in the level of fear was .16 with a 95% confidence interval ranging from .05 to .28. This significant decrease in fear may be explained by the general nature of the survey. Not only do participants begin the survey with a variety of immeasurable stressors involving their personal lives, but they may also enter into the study with anxiety towards the experiment itself. What will they be asked? What kind of video are they going to have to watch? Will they be able to give “correct” answers? What other work is this taking them away from? Once the participants progress through the study and realize that the straight-forward questions do not require a correct answer and the video is just a television commercial, their overall levels of fear may decrease.
Chapter 3

RESULTS

Several of the following results were found using paired-samples $t$ – tests. These tests were not combined into a repeated measures ANOVA because this test requires one categorical independent variable with at least three levels (e.g. Time 1, Time 2, Time 3) or each participant measured on three different items using the same response scale. The hypotheses that were tested using paired-samples $t$ – tests maintained categorical independent variables with only two levels (Time 1 and Time 2) and utilized varying response scales depending on the measure. Thus, the paired-samples $t$ – test was the most appropriate statistical test.

3.1 Fear ($H_1$)

In order to test the hypothesis that a humorous message will lessen the amount of fear that was felt after a fear appeal, a paired-samples $t$ – test comparing fear after viewing a fear appeal ($M = 1.60; SD = .60$) and fear after viewing a humorous video ($M = 1.34; SD = .51$) was conducted. The analysis indicated a statistically significant decrease in levels of fear, $t (130) = 5.32, p < .05$. The mean decrease in the level of fear was .27 with a 95% confidence interval ranging from .17 to .37. The eta squared statistic (.18) indicated a large effect size. As previously mentioned, a paired-samples $t$-test conducted on the control group that witnessed a neutral video also revealed a
statistically significant decrease in the level of fear. However, the mean decrease in fear for those who witnessed the humorous video (.27) was higher than that in the control group (.16), indicating a difference between humorous messages and neutral messages in their ability to decrease fear.

3.2 Discounting, Cognitive Processing (H$_2$), & Counterarguing (H$_3$)

Nabi and her colleagues (2007) claim that individuals often discount humorous messages as jokes that play no role in the formation of their attitudes and beliefs. Similarly, Young (2008) has found that humorous messages tend to lead to audiences engaging in a lower level of argument scrutiny versus their serious counterparts. As such, they may be less likely to counterargue the claims made by the creators of humorous messages and more likely to assume that the information presented is, in fact, true. Because H$_2$ and H$_3$ make claims about the discounting, counterarguing, and cognitive processing of messages, several statistical analyses had to be conducted.

First, a one-sample $t$–test was performed to determine the difference between participants’ level of discounting and the neutral value of 3 (on a scale from 1 to 5). There was a statistically significant difference between the level of discounting by participants ($M = 3.29; SD = .79$) and the neutral value, $t(130) = 4.16, p < .05$. The mean difference in scores was .29 with a 95% confidence interval that ranged from .15 to .42. The eta squared statistic (.12) indicated a moderate effect size.

Now that a significant level of message discounting has been determined, the degree to which participants counterargued the fear appeals and humorous messages
must be explored. A paired-samples $t$ – test comparing the counterarguing of the fear appeal ($M = 3.43; SD = .97$) and the humorous message ($M = 2.76; SD = .67$) displayed a statistically significant difference in countarguing, $t (130) = 5.76$. The mean difference in scores was .67. The eta squared value was .20, showing a large effect size. Thus, the participants engaged in a significantly higher level of counterarguing of the fear appeal than they did of the humorous message ($H_3$).

Finally, a paired-samples $t$ – test was used to determine the difference in cognitive processing of the fear appeal ($M = 3.30; SD = .52$) versus the humorous message ($M = 3.39; SD = .57$). The test revealed a difference in fear-inducing and humorous messages that only approached significance, $t (130) = 1.71, p = .09$. The eta squared value of .02 indicated a small effect size. Therefore, the participants tended to discount the humorous messages as “just jokes” while also counterarguing the funny messages less than the fear appeals ($H_3$). However, the analyses did not statistically support a significant difference in cognitive processing ($H_2$).

### 3.3 Attitudes ($H_4$)

In order to evaluate participants’ attitudes towards the makers of the fear-inducing and funny videos, a paired-samples $t$ – test was utilized. The results indicated significantly more positive attitudes towards the humorous videos ($M = 4.34; SD = 1.71$) than the fear appeals ($M = 3.43; SD = 1.23$), $t (130) = 4.88, p < .05$. The mean difference in values was .91 (95% CI: -1.28 to -5.4). The eta squared statistic
(.15) indicated a large effect size. Thus, the makers of the humorous videos generated more positive attitudes than did the makers of the fear appeals (H₄).

3.4 Liking (H₅)

On a similar note, participants’ level of liking towards the makers of the videos was measured and evaluated. A paired-samples $t$-test was conducted to compare the amount of liking towards the maker of the fear appeal ($M = 3.60; SD = 1.64$) and the maker of the humorous message ($M = 5.06; SD = 1.52$). The results indicated a significantly higher level of liking towards the maker of the humorous appeal compared to the fear appeal, $t(130) = 7.33, p < .05$. The mean difference in the values was $1.45$ (95% CI: -1.85 to -1.06). A large effect size is indicated by an eta squared value of .29. Therefore, participants indicated stronger liking for the makers of the humorous appeals than they did for the makers of the fear appeal (H₅).

3.5 Credibility (H₆)

The sixth hypothesis asserts that participants would perceive more credibility in the makers of the funny videos than they would in the makers of the fear appeals. To test this claim, a paired-samples $t$-test was conducted. There was a statistically significant difference between the level of credibility of the makers of the fear appeal ($M = 3.88; SD = 1.43$) and the makers of the humorous messages ($M = 4.45; SD = 1.26$), $t(130) = 3.24, p < .05$. The values displayed a mean difference of .56 at a 95% confidence interval ranging from -.90 to -.22. The eta squared statistic (.07) indicated a moderate effect size. Thus, as expected, the makers of the humorous content
displayed a higher level of perceived credibility than did the makers of the fear appeals ($H_0$).

### 3.6 Argument Quality ($H_7$)

The final hypothesis makes the claim that participants will perceive higher argument quality from the humorous messages than from the fear-inducing messages. A paired-samples $t$–test revealed a statistically significant difference between the argument quality of the fear appeal ($M = 3.53; SD = 1.68$) and the humorous message ($M = 4.22; SD = 1.33$), $t(130) = 3.92, p < .05$. The mean difference was $.69$ (95% CI: -1.04 to -.34), and a moderate effect size was indicated by an eta squared statistic of .11.

### 3.7 Humor vs. Content (RQ$_1$)

Beyond the hypotheses previously tested, this study also asked if a decrease in fear might be attributed to the general nature of humor or, instead, to the specific content being discussed humorously. In other words, does fear go down because the message is funny or because the claims in the fear appeal are being refuted? Both Groups 1 and 2 witnessed humorous messages where the content explicitly satirized or joked about the content of the fear appeal that they witnessed earlier in the experiment. However, Group 3 simply witnessed a humorous message that in no way discussed the content of the previously viewed fear appeal. In order to test for differences between the three groups, a one-way between-groups analysis of variance (ANOVA) was conducted. There was no statistically significant difference at the $p < .05$ level in the
amount of fear felt after watching the humorous message, $F (2, 128) = .21$. Thus, the humorous stimuli reduced the level of fear to the same extent, regardless of whether it directly mocked the fear appeal viewed earlier or if it was just an unrelated humorous video. In other words, content played no significant role in altering the amount of fear felt after viewing the funny video.
Chapter 4

DISCUSSION

This study expanded upon previous research examining the multiple processes occurring in the human brain when fear is induced or when humor is consumed. However, with a rise in the usage of political fear appeals along with the growing popularity of late-night political humor, the need for a clearer understanding of the interaction between cognition and affect is imperative. By exploring the role that political humor may play in counteracting the negative effects of fear appeals, this study reveals that political humor should be seen as both entertaining and functional— for individuals and society as a whole. On an individual level, political humor provides a mechanism for counteracting fear appeals’ negative effects on individuals’ ability to gain true political information. When considering the larger society, a more informed electorate is better able to connect personal ideals with candidate positions (Lau & Redlawsk, 1997), aiding in the general health of democracy.

The results indicated that, as predicted, humorous messages decreased the amount of fear an individual feels after consuming a fear appeal (H₁). Likewise, the results supported the hypothesis that individuals more strongly counterargue a fear appeal than they do a humorous message while discounting the humorous message as “just a joke.” (H₃). However, although H₂ predicted a higher amount of cognitive
processing of the fear appeal than of the humorous message, no significant difference was found between the two groups.

Results also demonstrated significant differences in the perceived credibility, quality, and attitudes toward the fear appeal and humorous message. Participants reported more positive attitudes towards the humorous message than fear appeal ($H_4$) and liked the maker of the humorous message more than the maker of the fear appeal ($H_5$). Finally, participants perceived more credibility in the maker of the humorous message than in the maker of the fear appeal ($H_6$) while also perceiving greater argument quality in the humorous message than in the fear appeal ($H_7$).

4.1 Content or Humor

In general, the participants indicated a more positive perception of the humorous messages than the fear appeals. But why would one expect to see differences between these types of messages? More liking, higher credibility, and stronger arguments may all be explained by the overall pleasant nature of humor. Broadly speaking, humor is created to induce positive affect, with political humor often acting as a form of entertainment that subsequently provides political knowledge by allowing political information to be disguised by the amusing characteristics of humor (Baum, 2003a). On the other hand, fear appeals are generated to elicit negative affect, as can be seen in the very definition of fear (Witte, 1992). While both fear appeals and humor can display persuasive elements, individuals may be more trusting
of someone whose perceived goal is laughter instead of fear, as is indicated in higher levels of liking and credibility for the comedians.

The overarching research question guiding this study asked if a humorous portrayal of a fear appeal would reduce fear, or if the overall emotional nature of being exposed to a humorous message was effective in reducing fear. Two of the humorous stimuli directly refuted the claims made in the previously viewed fear appeal. Meanwhile, the third humorous stimulus was an unrelated, yet politically humorous, message. The analyses conducted revealed an interesting result—the groups who witnessed one of the two humorous messages that directly mocked the content of the fear appeal did not report a significantly larger decrease in fear than did the group that watched a generically humorous message. In other words, when Jon Stewart and Stephen Colbert clearly referenced and mocked the claims of the fear appeal, these messages played no detectable role in lessening the participants’ fear compared to an unrelated humorous message. This result suggests that emotion is playing a stronger role than is cognition in the processing of these messages.

An explanation for this conclusion may be found in the works of both Young (2008) and Nabi and her colleagues (2007). As mentioned earlier, Young (2008) has found that when arguments are delivered humorously, the message consumers are less likely to cognitively scrutinize the claims being made. Furthermore, Nabi and her colleagues (2007) argue that the way people label discourse plays a role in determining how much they scrutinize the argument being made. In fact, they may
discount a humorous video as a message that is meant to entertain, not persuade. As an effect, individuals may engage in less cognitively based argument scrutiny.

When applying these concepts to the current study, one can begin to see how emotional processes (as opposed to cognitive processes) may be playing a larger role in reducing fear. First, this study found no significant difference in the amount of cognitive processing involving the fear appeal versus the humorous stimuli. Although this finding does not support the previously mentioned hypothesis, it does support the idea that individuals are not engaging in an increased level of cognitive processing in order to understand or scrutinize the content of the joke. Furthermore, as humor suspends argument scrutiny through a discounting cue, it inherently reduces a form of cognition (see Nabi et al., 2007; Young, 2008). The same cannot be said about the emotional processes occurring. In general, humor is inextricably linked with positive affect, both anticipated and experienced (see Moran, 1996; Young, 2008). In other words, humor generates an emotional response, and if argument scrutiny has been decreased in the process, then this may explain why simple humor, and not necessarily cognition, causes a decrease in fear.

4.2 Discounting Cue
This study supported Nabi and her colleagues’ (2007) assertion that humor seems to be discounted as “just a joke.” However, it is important to note that the discounting scale (replicated from Nabi et al, 2007) was only reliable after removing the fourth item scale—It would be easy to dismiss the message as just a joke.
Responses to the other items (The maker of the message was joking; The message was intended more to entertain than to persuade; The maker of the message was serious about advancing his views in the message) constituted a reliable scale. The respondents tended to agree that the makers of the humorous stimuli were joking and that the messages were meant to entertain more than they were to persuade. They even seemed to agree that the makers of the messages were not quite serious about advancing their views. However, responses varied when the idea of “dismissing” the message was introduced.

Such discrepant responses could have several explanations. First, this may indicate that individuals simply do not realize that they are discounting humor. Instead, the process may be happening subconsciously. They realize that the message is a joke and meant to make them laugh, but that does not mean that they are purposefully discounting it as nothing more than a joke. Second, the discrepancy may imply that the respondents are offended by or uncomfortable with the idea that because the message is funny, it cannot also be true. Overall, participants reported more liking and a higher perception of credibility for the makers of the humorous messages compared to the makers of the fear appeals. They also responded that the humorous stimuli maintained stronger arguments than did the fear appeals, which coincided with a more positive attitude towards the funny messages. Therefore, dismissing the information the comedians are presenting would not make intuitive sense. Instead, what seems to be happening is a defensive reaction in favor of the credibility and worth of political humor.
4.3 Implications

This study adds to the growing body of literature that demonstrates political humor can actually increase political knowledge and participation while altering attitudes and opinions (e.g. Baum, 2003a, 2003b, 2005; Baumgartner & Morris, 2008; Brewer & Cao, 2006; Young, 2004, 2006). However, the results of this study also suggest a larger implication—that political humor can be used functionally to counteract the effects of unethical political messages. With the rise in the usage of political fear appeals comes the valid concern that voters are being manipulated or misled. Conway, Grabe, and Grieves (2007) have found that television personalities like Bill O’Reilly continually construct battles between good and evil in society instead of offering moderate alternatives. Unfortunately, these tactics can damage the health of American democracy by preventing voters from obtaining the political knowledge they need in order to connect their preferences with the ideologies of candidates (Lau & Redlawsk, 1997). In short, more political knowledge is better than less. If political humor can counteract fear appeals and their effects while also increasing political knowledge, then it maintains a unique ability to benefit American democracy. But how would political humor’s effect on fear appeals strategically work?

The extended parallel process model (EPPM) asserts that every fear appeal should contain information related to four main concepts: susceptibility, severity, response efficacy, and self-efficacy (Nabi, Roskos-Ewoldsen, & Carpentier, 2008). Both susceptibility and severity are considered when an audience first consumes a fear
appeal and evaluates the threat being made. If an individual perceives a low level of threat or views the threat as trivial, then he or she maintains no motivation to process the message further. As a result, no additional cognitive processing of the fear appeal occurs and its persuasive effect, in essence, dies. This is where political humor can make its largest impact. Whether Jon Stewart and Stephen Colbert mock fear appeals or simply generate laughs, they can distract individuals from perceiving a true threat. In other words, their jokes can be used to strategically counteract fear appeals before audiences can fully process and carry out the recommended actions. It must be noted, however, that this may be placing pressure on comedians to play a role other than just making audiences laugh. Even though Jon Stewart admitted in a September 2011 issue of Rolling Stone that he engages in a humorous form of social criticism, he is still fundamentally an entertainer. It is likely unfair to expect he or his colleagues to function as humorous crusaders against immoral political messages.

4.4 Limitations & Future Research
As with all studies, this research has its limitations. For instance, many of the scales used in this study were adapted from studies that looked at forms of media other than television—such as print news. In the future, these scales need to be updated to apply to newer media (i.e. Internet and television) and tested to see if differences exist in how individuals would respond to these scales depending on the form of media used. This study also raised concerns involving the face validity of the items that make up the scale measuring fear. Recall that the measures of fear used in the main
study were adapted from Witte (1994) and include: fright, anxiety, discomfort, and nausea. Although this scale and the original scale used by Witte are reliable, they may need to be reevaluated in order to ensure that they are actually measuring fear and not some other set of similar emotions. For instance, in order to gain a clearer picture of the emotion, future measurements of fear may also want to include items such as terrified, shocked, scared, or concerned.

Furthermore, future studies should compare changes in fear along with perceptions of humor, credibility, argument quality, and liking depending on whether or not participants have viewed late-night political humor like The Daily Show or Colbert Report. Even though respondents were randomly assigned to conditions, if they have already developed an opinion of Jon Stewart and his program, they may report perceptions of high argument quality independent of the actual content of the message. Likewise, studies should ask if positive affect generated by humor is attributing to these optimistic perceptions of the comedians, or if a previously generated opinion of the humorous commentators is to blame. Would the effects of humor be as strong if an unknown comedian presented the messages?

A manipulation check conducted as part of this study found that fear decreased even after watching neutral video content. Although the mean decrease in fear was greater for those who watched a humorous video, these findings still raise concerns about the general format of the study. The participants entered the study with a level of fear or anxiety that could not be controlled. However, the nature of the study may have exacerbated this fear by offering individuals minimal information about the
experiment before they began. Although this mild level of anxiety is unavoidable in any experimental contexts, it still poses a challenge for those studying fear and anxiety in an online format.

Yet another challenge for future studies involves the increased usage of fear appeals by political figures. Although studies such as this one discuss the cognitive and emotional processes occurring, future studies should also explore how this increase is affecting the general population’s perception of fear appeals. More specifically, studies should explore if desensitization is occurring, where fear-inducing messages become so common during election seasons that they, in essence, lose their intended effect. In other words, if numerous political candidates are generating fear appeals, then do maladaptive (i.e. fear control) processes occur in the ways suggested by Witte (1992)? Perhaps utilizing stimuli that are more relevant to the population being sampled will aid in generating more fear during future studies.

Finally, this study only utilized televised video messages as stimuli. No comparisons across different forms of media were made. Therefore, future research could explore if humor’s effect on fear is as large through a different medium such as radio, newspaper, or social network posts. Results would shine light on whether or not there is something unique about televised virtual humor in comparison to both more and less interactive media.
4.5 Summary and Conclusion

The present study reveals some unexpected, yet important, results on the emotional and cognitive processes involved when fear and humor interact. Ultimately, this research suggests that humor itself (and not necessarily the content of the humorous message) can reduce the amount of fear experienced after witnessing a political fear appeal. The results support Young (2008) and Nabi and her colleagues (2007) in the claim that when arguments are delivered humorously, consumers are less likely to cognitively scrutinize the claims being made. As a result, strong emotional processes, as opposed to cognition, are the key player in processing the message. Likewise, the discounting cue hypothesis, which was introduced by Nabi, Moyer-Guse, and Byrne (2007), was supported although some discrepancy exists concerning whether or not this action is consciously occurring. Better measurements of fear are needed, along with a better understanding of how fear and humor interact depending on the medium. Regardless of the limitations, this research clearly adds new, important implications about the role of humor in negating fear—it may not be the content in the humor, but humor in and of itself that reduces fear.
REFERENCES


Appendix A

MESSAGE PROCESSING DEPTH

Message Processing Depth (adapted from Wolski & Nabi, 2000):

(Motivation)
1. This issue is interesting to me
2. I was interested in what the creator of the message had to say
3. I don’t find this issue very interesting*
4. I was motivated to watch this video

(Depth)
5. I focused on the arguments that were made
6. While watching the video, I paid close attention to each point that was made
7. I didn’t pay close attention to the arguments*
8. I concentrated on the video arguments

(Ability)
9. My mind kept wandering as I watched the video*
10. While watching the video, I didn’t let myself get distracted from focusing on the video’s content
11. While watching the video, thoughts about other things kept popping up in my head*
12. My mind did not wander as I watched the video

(Bias)
13. I remained objective about the video content
14. My prior beliefs about the issue prevented me from being objective*
15. I tried not to let how I feel about the issue influence how I watched the video
16. I tried to remain impartial as I watched the video

*= Reversely coded
Appendix B

IRB APPROVAL LETTER

DATE: February 3, 2012

TO: Kayla Steele
FROM: University of Delaware IRB


SUBMISSION TYPE: New Project

ACTION: APPROVED
APPROVAL DATE: February 3, 2012
EXPIRATION DATE: February 2, 2013
REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the study and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.
Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the appropriate adverse event forms for this procedure. All sponsor reporting requirements should also be followed.

Please report all NON-COMPLIANCE issues or COMPLAINTS regarding this study to this office.

Please note that all research records must be retained for a minimum of three years. Based on the risks, this project requires Continuing Review by this office on an annual basis. Please use the appropriate renewal forms for this procedure.

If you have any questions, please contact Jody-Lynn Berg at (302) 831-1119 or jlberg@udel.edu. Please include your study title and reference number in all correspondence with this office.