The Influence of Emotional Campaign Advertisements on Voting Behavior in Environmental Referenda

by

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An Honors Thesis

Submitted to fulfill the
Requirements for Graduation with Honors in Political Science

at

Indiana University Bloomington

May 2012

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Campaigns spend millions of dollars on television advertisements. The Wesleyan Media Project managed to find 900,000 advertisements to analyze that aired between January 1, 2010 and October 5, 2010, even though no presidential election took place that year (Fowler October 14 2010). In a little over a month, between September 1 and October 7, campaign advertisements for candidates for the House of Representatives and the Senate approached $200 million, with the total spending from January 1 to October 7 reaching $367 million, a 75% increase over previous years (Fowler October 13 2010). Despite the large amount of campaign advertisements and the abundance of money spent on these ads, their effectiveness is more or less unknown.

Considerable disagreements exist regarding the effect of negative campaign advertising, and no consensus on the effectiveness of negative political advertisements exists (Lau, Sigelman, and Rovner 2007 1185). Some argue negative campaigns are beneficial to voter knowledge and turnout (Brader 2006; Franz, Freedman, Goldstein and Ridout 2008), while others disagree (Ansolabehere, Iyengar and Simon 1999; Stevens, Sullivan, Allen and Alger 2008). Most of the studies have been restricted to elections of candidates, instead of ballot measures. In this study, I examine campaigns focused on environmental issues where political party preferences hold considerably less value in decision-making.

The importance of informing individuals on environmental issues is essential, given the large divide between expert knowledge and the average citizen’s knowledge on environmental politics (Fischer 2000). Studying how political experts attempt to inform the public could lead to understanding the reasons behind voter behavior regarding environmental ballot initiatives.
This research seeks to answer the question, “What is the effect of emotional cues in television campaign advertisements on voter behavior on ballot initiatives?”

My thesis is as follows. First I analyze the context of environmental initiatives and their growing importance. I summarize the findings of other literature on campaign advertisements as well as ballot initiatives, and interpret those findings into my own hypothesis. I then test this hypothesis through an online experiment with a subject pool of undergraduates. The results of this experiment are then analyzed and discussed. Finally I suggest ways in which future research could improve upon my study.

**The Importance of Environmental Ballot Initiatives**

Environmental ballot initiatives now may matter more than ever, with the passage of California Senate Bill 202, which requires ballot initiative votes to take place during the general election instead of during primary elections (Mulkern 2011). The passage of the law could potentially aid the passage of environmental legislature (Mulkern 2011). Additionally, in 2010, the environmental Proposition 23 received a great deal of media attention. Proposition 23 would have suspended Assembly Bill 32, “The Global Warming Solutions Act of 2006.” AB 32 requires greenhouse emissions in California to be lowered to 1990 levels by 2020. The campaign for the proposition raised over 8 million dollars, and the campaign against the proposition raised over 6.5 million dollars (Roosevelt 2010).

The effect of these television advertisements on ballot initiatives is relatively unknown. While research exists on television campaign advertisements (Franz, Freedman, Goldstein and Ridout 2008; Lau, Sigelman and Rovner 2008; Brader 2006; Rudolph, Gangl and Stevens
2000), most of the literature focuses on advertisements for presidential candidates, or at least individual candidates.

Although some researchers explored emotional advertisements, while others studied ballot initiatives, researchers neglect to combine the two. Environmental initiatives are of considerable importance, as businesses often universally oppose legislation regulating pollution. Therefore, laws may garner large public support but fail to pass in the legislature (Briffault 1984 n103). Ballot initiatives can therefore serve as a key tool in passing environmental legislation, for example, the California Coastal Zone Act of 1972, a key component of environmental legislation, passed as a ballot initiative (Briffault 1984 n116).

Given the increased financing of certain environmental campaigns such as Proposition 23 in California, as well as the passage of S.B. 202 in California making ballot initiatives more likely to be voted on by a larger voting public, the question of whether or not advertising campaigns are effective is an important one.

While the effectiveness of campaign advertisements has been studied, most of this research focuses on advertisements for specific candidates for election, and not for ballot initiatives. Thus, the contribution of this research project is to clarify the effect of ads in non-candidate elections.

**Partisan Viewpoints of Environmental Issues**

An environmental ballot initiative was specifically chosen because although ballot initiatives are never specifically partisan, some issues attract more support from certain political party members. Other issues that could appear on ballot initiatives include marijuana legalization or gay marriage legalization. However, in 2011, a Gallup survey found 69% of
Democrats believe gay marriage should be legal as opposed to only 28% of Republicans (Newport November 2011). Similarly, 57% of both Independents and Democrats favor marijuana legalization as opposed to 35% of Republicans.

Additionally, the age of the participants of the survey was also a factor. The participant pool consists entirely of undergraduates. According to Gallup, 70% of those aged 18-34 support gay marriage (Newport May 2011). Furthermore, 62% of individuals between the ages of 18-29 favor marijuana legalization (Newport November 2011). Given the growing support for these issues, especially among younger individuals and gaps in support among political parties, I decided I needed to test a different issue for survey in order to measure the effects of the advertisements, not the policy.

In order to examine the official stances of each party, I examined their 2008 platforms. The 2008 Republican platform states, “It was Republican President Theodore Roosevelt who said, ‘The conservation of natural resources is the fundamental problem. Unless we solve that problem, it will avail us little to solve all others.’ We agree” (Republican Platform 2008 36). Although the Republican platform also mentioned the need to balance economic and environmental interests, it never stated economic interests should be a priority. It also concentrated on the need for conservation and protection of endangered species.

Likewise, the Democratic National Committee emphasized a need to prioritize the environment in their 2008 platform. The platform stated Democrats would help protect national treasures, and in order to accomplish that goal, they would invest in research to protect the animal species living in those habitats (The 2008 Democratic National Platform 2008 47). Additionally, the platform encouraged local initiatives to advance sustainable practices (The 2008 Democratic National Platform 2008 47).
Preserving the environment was one of the few issues each party agreed on. The Democratic party stated it opposed the Defense of Marriage Act (The 2008 Democratic National Platform 2008 52). In contrast, the Republican Party platform called for a constitutional amendment that defines marriage as a union between a man and a woman (Republican Platform 2008 53). The Republican Platform devoted a subsection to “Continuing the Fight Against Illegal Drugs” and the Democratic Platform mentioned a need for an extended use of drug courts. Compared to potential other ballot initiatives, environmental ballot initiatives seemed the most likely to garner support from both political parties.

Combining Ballot Initiatives and Advertisements

Existing research suggests that ads with emotional components are often most effective at moving voters. Specifically, advertisements attempting to elicit fear and enthusiasm have been studied in the past. Marcus and Mackuen (1993) examined the effects of anxiety and enthusiasm on voter involvement during presidential campaigns. Anxiety and enthusiasm were chosen as the two emotions after researching the expected reactions in neurophysiology and mood psychology (Marcus and Mackuen 1993 674). Marcus and Mackuen (1993) combined existing psychology research and applied it to the political realm. Cognitive psychology supported their theory on how people learn in politics, specifically, “they abandon complacency and start to pay attention when the world signals that something is not right” (Marcus and Mackuen 1993 673). Emotions play a role in decision-making, and specifically, negative emotions can cause individuals to reevaluate existing predispositions.

The study consisted of examining two data sets, one from the American National Election Studies (ANES) panel of 1980 and the other a commercial survey of Missourians from
the 1988 presidential elections (Marcus and Mackuen 1993 674). However, this data did not specifically differentiate anxiety and enthusiasm. Even so, Marcus and Mackuen (1993) were able to conclude that people’s emotional responses to the ongoing presidential campaign changed and evolved over time (675). The finding by itself was unremarkable, so the study delved deeper into the subject with the 1980 ANES data.

Overtime, the public began to learn more about policy as the campaign progressed (Marcus and Mackuen 1993 678). Strong partisanship aided this process, as did emotional reactions to advertisements (Marcus and Mackuen 1993 679). The study concluded that partisanship is dominant, and the dominant emotion is enthusiasm (Marcus and Mackuen 1993 680). However, environmental campaigns and ballot initiatives would not be as influenced by partisanship, and other factors could influence voter decision-making.

Emotive campaigns concerning environmental issues could theoretically draw on more evocative images, such as pictures of cute animals. However, the utility of such images is arguable. According to an experiment by Huddy and Gunnthorsdottir (2000), where they distributed several versions of a handout with text asking for support for or against protecting an imaginary animal. The handouts featured a picture of a “cute” animal, an “ugly” animal, or just text. They theorized that the emotional appeals could work best on the least informed voter, or alternatively could work best on well-informed voters. Originally, Huddy and Gunnthorsdottir hypothesized the picture of the cute animal would gain more support than the picture of the ugly animal, particularly among those who supported environmental issues (2000). However, the results of their experiment showed that regardless of the picture shown, people who previously held favorable opinions of the environment were more apt to participate
Researchers in communications, psychology and political science have examined emotional political advertisements. Some have attempted to recreate the experiences of campaign advertisements in a laboratory setting (Brader 2006). In one of those experiments, a sample of people was shown a segment of the news that included altered campaign advertisements. The subjects took a survey before and after watching the clip. According to the results of the survey, fear could convince people to change their vote. On average, people who were shown a political advertisement with fear cues had a 0.08 probability of changing their opinion of the sponsor of the advertisement if they were originally indifferent or opposed to the candidate (Brader 2006 115). The same effect was not observed if the people originally supported the candidate.

In addition to conducting a survey, Brader (2006) also analyzed existing advertisements and coded for the emotions that political advertisements attempt to elicit. He also studied the conditions in which certain politicians apply certain emotional appeals. The study found partisanship played a role in the type of emotional advertisements. Republicans were more likely to use fear in their advertisements when the state leaned Democratic, and vice versa (Brader 2006 170). The advertisements often also relied on both emotional appeals and logical arguments. Fear appeals are more prevalent in competitive campaigns (Brader 2006 176).

Furthermore, negative campaigns may influence the electorate on their voting behaviors for ballot initiatives. While negative advertisements can increase overall turnout, it can also lead partisans to avoid voting if their party is the subject of denunciation (Stevens, Sullivan, Allen and Alger 2008). In the abstract, most people claim they dislike the idea of negative
campaigns: however, whether they find the criticism to be fair changes when actual candidates are replaced with hypothetical ones (Stevens, Sullivan, Allen and Alger 2008 535). People are more likely to find criticisms of their own party’s candidate to be unfair. However, on the rare occasions people find the attacks on their candidate to be legitimate, and they react by not voting instead of voting for the opposing candidate (Stevens, Sullivan, Allen and Alger 2008 539).

Public knowledge of the existence and content of ballot initiatives varies greatly (Nicholson 2003). According to the July 9, 2010 Field Poll, 61% of people interviewed had not heard of Proposition 23 (5). A later poll, six weeks before the election, found that only 37% of people heard of Proposition 23 (Field Poll September 25, 2010 4). Stephen P. Nicholson examined public awareness to ballot initiatives. Examining data from The California Poll (Field Poll) from the years 1956-2000, he calculated the percentage of voters familiar with different California ballot measures. In an attempt to decipher why certain initiatives were better known than others, Nicholson analyzed campaign spending, media coverage and other issues. Unsurprisingly, large amounts of campaign spending increased awareness (Nicholson 2003 406). Negative campaign spending also increases awareness of initiatives (Nicholson 2003 408-409). Positive media attention did not increase awareness at a statistically significant level (Nicholson 2003 409). However, Nicholson only analyzed media coverage by stating whether or not the Los Angeles Times featured a headline about the proposition on the front page. In a controlled setting where advertisements are shown, awareness will likely increase.

Negative coverage can of course go farther than newspaper coverage. In their book, Franz, Freedman, Goldstein and Ridout claim negative campaign advertisements have a positive effect on democracy (2008). Using the Wisconsin Advertising Project, a project that
codes data collected by the TNS Media Intelligence/Campaign Media Analysis Group (GMAG), they analyzed citizens’ exposure to advertisements and compared the results to surveys and other data (Franz, Freedman, Goldstein and Ridout 2008). Using the results of the ANES study, exposure to advertisements increased a person’s likelihood to vote from roughly 50% to 70% (Franz, Freedman, Goldstein and Ridout 2008 108). However, ANES data often reports higher voter turnout than official data (Franz, Freedman, Goldstein and Ridout 2008 107), so the study also analyzed county-level data. The county-level data showed that for every 10,000 advertisements, turnout increased about 3% (Franz, Freedman, Goldstein and Ridout 2008 110). However, Franz, Freedman, Goldstein and Ridout confess the growth in voter turnout is relatively minor, but it appears campaign advertisements do not decrease voter turnout (2008). However, other literature has challenged that conclusion. Ansolabehere, Iyengar and Simon (1999) state that negative advertising depresses voter turnout. They also used NES data, finding fewer people had an intention to vote in states where more advertisements were shown (Ansolabehere, Iyengar and Simon 1999 903).

**Existing Ballot Initiative Advertisements**

I analyzed 46 environmental and animal welfare ballot initiative advertisements from 6 different campaigns, most taking place in 2010.¹ The advertisements were chosen because of their environmental positions, the availability of the advertisements on the web and the location of the states. Of the advertisements found, the majority of them took pro-environmental

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¹ These advertisements were from campaigns either supporting or opposing Proposition 23 in California (2010), Missouri Proposition B (2010), Maine Question 3 (2010), Colorado Amendment 52 (2008), Washington Initiative 1107 (2010), and Oregon Measure 76 (2010).
stances. The way they approached their advertisements differed. Some relied on fear tactics,

**Figure 1. Images from Existing Environmental Ballot Initiative Advertisements**

- Missouri Prop B 2010 Ad
- California Prop 23 2010 Ad
- Maine Question 3 2010 Ad
- California Prop 23 Ad
- Missouri Prop B 2010 Ad
- California Prop 23 Ad
- California Prop 2 2008 Ad
- Washington I-1107 Ad
animal welfare initiatives often used compassion and sympathy emotional cues, and others depended on enthusiasm cues. Campaigns endorsing environmental and animal welfare legislation mostly fell into four categories. Their advertisements attempted to elicit sympathy and compassion, instill anger, appeal to voters through expert opinion or inspire hope. Although the ads did not tend to focus exclusively on an individual emotion, anger ads would often also draw on compassionate feelings for example, one argument tended to dominate the advertisement.

**Predictions**

Given the findings of previous literature, it seems advantageous for campaigns promoting or opposing ballot initiatives to utilize negative campaign advertisements. Negative campaign advertisements can mobilize individuals who feel politically effective, those who believe they can actively participate in the results of elections (Rudolph, Gangl and Stevens 2000). The number of politically efficacious people could potentially increase when it comes to ballot initiatives because voters directly affect the results. However, it may not increase, because individual contribution is not necessarily significant. However, given the contested nature of the utility of negative campaign advertisements, it is necessary to measure whether enthusiasm-based positive advertisements or fear-based negative advertisements influence willingness to vote. Also, by removing partisanship and candidate personality from the advertisements, the importance of the actual tone can of the commercials can be more easily identified.

Based on the previous research analyzed, I predict that:
1. Positive advertisements should motivate those who already support the ballot initiative and are knowledgeable about politics.

2. Negative advertising should slightly increase willingness to vote, with the possible exception those strongly opposed to the ballot initiative. In addition, negative advertising will change a small minority of voters’ opinion on the initiative. This will be because the anxiety and unease caused by the advertisement will make the participants likely to change their mind from their previously held opinions.

**Experimental Design**

In order to test the predictions proposed above, I ran an experiment. The goal of the experiment was to test whether or not the results of previous research on emotional campaign advertisements applied to ballot initiative advertisements. In the absence of a candidate, who could be judged by numerous measures including his or her membership to the Democratic or Republican party, as well as his or her physical appearance, the effect of emotional cues could be more or less persuasive. Additionally, using an experiment was the most effective way to identify an exact cause of a change in voting behavior. Experiments allow researchers to rule out other potential influences by asking questions directly before and after exposure to the stimulus. Experiments involving emotions are especially helpful since emotions come and fade quickly, and it would be difficult to discern their effects long after the exposure to the stimulus (Brader 2005 391).

The experiment was conducted online through the website Qualtrics, a website designed for conducting market research. Subjects were linked to the survey and able to take it in the comfort of their own homes, the same environment in which the subjects would view the ads if
they actually appeared on television. Conducting the surveys online allowed for the advertisements to be hosted on Youtube and embedded in the survey, so the pre-test questions and post-test questions could be responded to directly before and after viewing the advertisement. Through Qualtrics, subjects could be required to remain on the page which contained the advertisement for 30-seconds, or slightly over the length of the advertisement. Additionally, using the instant play feature of Youtube, the advertisements began instantly playing as soon as the subjects finished the pre-test questionnaire. By conducting the survey online through Qualtrics, many precautions could be taken to guarantee the participants actually viewed the advertisements, therefore adding legitimacy to the final results.

Experimental Design

The experiment relied on two different advertisements that contained different emotional cues. The two advertisements were created specifically for this experiment. One was a negative advertisement that contained negative emotional cues and the second was a positive experiment.

An advertisement from an existing ballot initiative, by The Land for Maine’s Future Coalition in favor of Maine’s 2010 Question 3 Maine’s Land Bond, served as the base for my negative and positive advertisements. The advertisement was chosen for numerous reasons. After viewing 46 advertisements, only a select few could be potentially altered and edited without appearing unrealistic. Of the 46 advertisements, 37 featured a talking head as the dominant form of communication. Re-dubbing audio over a person speaking would look and sound unrealistic and distract participants. Instead, I selected an advertisement that used a montage of clips. I cropped out the writing at the bottom of the screen, which read consisted of phrases spoken by the narrator. Additional advantages included the fact that the advertisement
was for a 2010 ballot measure voted on by the public, making it one of the most recent advertisements on a ballot measure. Secondly, the specific advertisement displayed completely positive imagery, as opposed to the more commonly found mixture of positive and negative imagery. Additionally, since the advertisement only aired in Maine, participants would be unlikely to have viewed it previously. The use of actual footage allowed for similarity to actual advertisements, however, by manipulating the footage the effectiveness of specific emotional cues, such as musical tones and dark imagery can be highlighted and contradictory positive and negative advertisements can be avoided. Therefore, the effect of specific emotional cues can be examined yet the similarity to actual advertisements will be maintained.

The advertisement for Question 3 Maine’s Land Bond was extracted from Youtube.com, using the website KeepVid.com which converts Youtube videos into MP4 files. From the MP4 file, the advertisement was cut into scenes and the audio removed. In the positive advertisement, the original soundtrack was replaced with upbeat acoustic guitar music and an original narration. The negative advertisement replaced the original audio with an unnerving soundtrack similar and original narration (Table 1). In the negative advertisement, two short scenes taken from advertisements for another ballot initiative, Proposition 23 in California, and incorporated with the other clips in order for the images of the advertisement to better reflect the recorded audio. For example, when the recorded audio mentioned the loss of jobs, instead of images of boats and people working, an illustration of employees walking away with their heads hung from a sign with an arrow pointed to it that read “Jobs.” To maintain control, only certain words and phrases were altered in each advertisement. The negative advertisement contained the majority of the same images, only in black and white (Table 1).
Spoken Voice Track

Treemulm Group One: Positive

Table: Positive and Negative Versions of the Campaign Advertisement

<table>
<thead>
<tr>
<th>Positive Version</th>
<th>Negative Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our local economy produces good jobs and products</td>
<td>Our local economy destroys good jobs and products</td>
</tr>
<tr>
<td>jobs and products indoors and outdoors</td>
<td>jobs and products indoors</td>
</tr>
<tr>
<td>Question 3: Vote yes on</td>
<td>Question 3: Vote no on</td>
</tr>
<tr>
<td>Tourism to help preserve our beautiful Indiana’s land and bond with</td>
<td>Tourism to destroy our beautiful Indiana’s land and bond with</td>
</tr>
<tr>
<td>the people of Indiana because</td>
<td>the people of Indiana because</td>
</tr>
<tr>
<td>we will protect good jobs for</td>
<td>we will protect good jobs for</td>
</tr>
<tr>
<td>our beautiful outdoors to come</td>
<td>our beautiful outdoors to come</td>
</tr>
<tr>
<td>will help preserve our beautiful</td>
<td>will help destroy our beautiful</td>
</tr>
<tr>
<td>Indiana’s land and bond with</td>
<td>Indiana’s land and bond with</td>
</tr>
<tr>
<td>Question 3: Indiana’s land and bond</td>
<td>Question 3: Indiana’s land and bond</td>
</tr>
</tbody>
</table>
The survey questions were based on the questions given to the subjects in previous research, specifically Brader (2006). The pre-test questions asked the subjects’ mood, income level, political party affiliation as well as their level of political knowledge (Appendix A). By including a pre-test and post-test, I will be able to attribute changes in responses to the advertisement. Otherwise it could be claimed the subjects’ opinions remained stagnant.

Since environmental causes receive support from both major political parties, I attempted to include a reason for subjects not to vote for the ballot proposition. Advertisements against environmental advertisements frequently mentioned how the proposition would increase taxes. Therefore, in the pre-test I introduced the proposition with the following introduction,

Question 3, Indiana’s Land Bond, is a ballot measure which would call for issuing a $9,750,000 bond issue to invest in land conservation, working waterfront preservation and preservation of state parks. The money would be collected from a 0.5% tax increase on candy bars, soda and potato chips.

Would you vote in favor of this legislation if possible?

Yes
No

The 0.5% tax increase on certain food items was an attempt to sway some votes against the proposition. The idea came from Washington’s I-1107, which reduced a tax on candy and bottled water. Environmental groups opposed the measure because it would cut funding to environmental causes. Another proposition, Oregon’s 2008 Measure 76, appropriated funds from the state lottery proceeds. I decided to use a tax increase as I hypothesized it would be a less popular means of funding.

Subjects

Two hundred and nineteen members of the Indiana University Department of Political Science subject pool participated in the online survey. Students participated in exchange for a
course credit. This may produce limitations to the study as undergraduates could be less likely to vote than the general electorate, or have different political ideologies. However, since the participants will be randomized into experimental groups, any effect on the results will be universal to each treatment group. Also, the pre-test measured any particular political leanings or dispositions, such as existing sympathy to environmental causes. Almost none of the subjects stated they were aware of any Indiana ballot initiatives which would be present in the November 2012 election.

One potential limitation of using a sample of undergraduates was that the sample had a higher income rate than the general populace. Almost half of the subjects, 44.7%, had an income level of $100,000 or more, compared to the 2010 Indiana median income of $46,322 (Census 2010). This could potentially increase willingness to donate to a campaign, as the participants have more money to give than the average Hoosier. However, since the subjects were randomly assigned into categories, the high level of income was reflected in both groups and therefore would not affect any comparison.

**Experimental Tasks**

The survey website Qualtrics allowed the subjects to be randomly assigned into the positive and negative groups, one group viewed the positive advertisement and the other viewed the negative advertisement. All participants were given the same pre-test survey. The pre-test survey asked the participants about their current moods, political ideologies, income level and knowledge of state and federal politics. At the end of the pre-test survey, the subjects read a brief, neutral summary and description of the ballot initiative (Appendix A). Afterwards, one treatment group watched a commercial altered so that it contained negative imagery, such as gray tones foreboding music. The other treatment group watched a commercial with positive
emotional cues such as bright colors and uplifting music promoting voting for the ballot proposition (Table 1).

The participants only viewed a 30-second campaign commercial in the interest of keeping the survey brief. Subjects were delayed from viewing the next page of the survey for 30 seconds, a few seconds longer than the length of the commercials. The participants were asked at the end of the commercial to identify whether they found the advertisement they just viewed to be generally positive, generally negative or generally neutral. All but one of the subjects correctly indicated the mood of the advertisement.

After viewing the treatment advertisement, each group was given the same post-test survey. The post-test survey contained some questions similar to the ones in the pre-test survey, however, the wording was never exactly the same in case the participants wished to remain consistent. For example, the pre-test survey asked the participants, “Generally speaking, how would you describe your mood today?” as opposed to the post-test question which asked “Please think about the ad you just saw for a moment. How did the ad make you feel?” This allowed for establishing a baseline of moods in the groups as well as for comparison between the two groups. Similarly, the pre-test asked participants if they would vote in favor of Question 3 if possible while the post-test asked how the subjects would vote if the election for Question 3 were to be held today. Both questions essentially asked the same question, however, the slight re-wording allowed for participants to change their mind without necessarily feeling as though their behavior was inconsistent. The post-test also measured for other political behaviors the advertisements could have had an effect on besides voting. Participants were asked about their likelihood to donate or volunteer.
Results

First I consider the basic make-up of my sample. My participants were relatively diverse in their political views. Self-proclaimed Democrats made up 43.0% of the participants. Self-proclaimed Republicans accounted for 31.0% of the rest of the participants, 22.3% were self-proclaimed Independents. Nine respondents, or 4.2% of the participants, stated they considered themselves as “other.”

In addition, the subjects were asked to rate certain political issues in order of their importance, with 1 being the most important and 10 being the least important. The issues included crime, education, the economy, global climate change and the environment, taxes and gay rights among other things. The purpose of this question was to devise how important environmental issues were to the participant, instead of simply asking them whether or not they favored certain environmental stances. The most popular ranking of global climate change and the environment was 10, with 18.1% of the respondents choosing this answer. The mean response was approximately 7. Given this response, it appears the majority of respondents did not hold include environmental issues in their top political priorities. Therefore, we can conclude that group changes were from the emotional content of the advertisement instead of actual sympathy for the cause.
Chart 1: Overall Ratings of Importance of Global Climate Change and Pollution

<table>
<thead>
<tr>
<th>Rating 1 (lowest priority) through 10 (highest priority)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>7</td>
<td>3.33</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>2.38</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>2.38</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>9.52</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>5.71</td>
</tr>
<tr>
<td>5</td>
<td>21</td>
<td>10.00</td>
</tr>
<tr>
<td>6</td>
<td>22</td>
<td>10.48</td>
</tr>
<tr>
<td>7</td>
<td>21</td>
<td>10.00</td>
</tr>
<tr>
<td>8</td>
<td>27</td>
<td>12.86</td>
</tr>
<tr>
<td>9</td>
<td>32</td>
<td>15.24</td>
</tr>
<tr>
<td>10</td>
<td>38</td>
<td>18.10</td>
</tr>
</tbody>
</table>

The advertisement’s influence on the participants was more dramatic than originally expected. As discussed earlier in the paper, previous research only found a 0.08 increase in probability of changing the subjects’ opinion of the sponsor, a statistic I believed would be similar to my results. I hypothesized the campaign advertisements would not have a dramatic effect on voter behavior, as previous research has concluded. The vast majority of participants understood the tone of the advertisements. From Group 1, who viewed the positive advertisements, 97% of the subjects stated the advertisement was “generally positive.” Five people believed the advertisement to be “generally neutral,” and only one person rated the advertisement as “generally negative.” In Group 2, who viewed the negative advertisement, 99% of the participants found the advertisement to be “generally negative.” No one thought the advertisement was positive in Group 2. This demonstrates the subjects understood the tone of the advertisements and the created advertisements reflected the tone they were intended to in the eyes of the subjects.
After viewing the advertisements, the subjects of each group were asked questions about emotions. This question was based on Brader (2006). Only 0.99% (less than 1 percent) of the subjects in Group 1, who viewed the positive advertisement, stated that one of the emotions they experienced was fear. However, in Group 2, 33.3% of those who viewed the negative advertisement responded they felt afraid. Similarly, only 3% of respondents in Group 1 reported feeling anxious after watching the commercial, compared to 30.4% of the respondents in Group 2. Even though the groups were aware of the negativity of the advertisements, the advertisements influenced their emotions.

**Figure 2: Levels of Anxiety by Political Party**

Likewise, in Group 1 (the positive group), respondents showed an increase in emotions related to enthusiasm. In Group 1, 26.7% of the respondents stated they felt “enthusiastic” after watching the advertisement, compared to only 2.0% of Group 2. Additionally, 20.8% of the subjects in Group 1 described feeling eager, whereas in Group 2 only 4.9% of the participants felt that way. The positive group also was more likely to feel reassured, with 36.6% of Group 1 responding they felt that way compared to 19.2% of Group 2.
The levels of anxiety did not coincide dramatically with any of the other variables. Along party lines, in Group 1, 2.7% of Republicans, 5.0% of Democrats and 0% of Independents or other felt anxious. In Group 2, those numbers shifted to 31.0%, 29.3% and 32.0% respectively. The reason for the anxiety appears to be the influence of the advertisement.

However, when it came to positive emotions, the groups differed slightly along party lines. In Group 1, 27.0% of Republicans, 42.5% of Democrats, and 45.5% of Independents stated they felt reassured after viewing the positive advertisement. In comparison, in Group 2, 3.4% of Republicans, 0% of Democrats and 4.0% of Independents reported feeling assured after viewing the negative advertisement. Although the advertisement failed to excite as much reassurance in Republicans as in the other political parties, the differences between groups was dramatic across all party lines. The differences in the level of enthusiasm across party lines was more muted. In Group 1, 24.3% of Republicans, 20.0% of Democrats and 36.4% of Independents expressed enthusiasm. In Group 2, 0% of Republicans, 2.4% of Democrats and 4.0% of Independents expressed enthusiasm after viewing the negative advertisement. The advertisements were able to influence the emotions of participants at a significant level regardless of their party.
Although the advertisements successfully influenced the emotions of the viewers, altering the behavior of the viewers would seem to be a more difficult task. Before viewing the advertisements, all participants were asked if they would vote in favor of Question 3 Indiana’s Land Bond, which would issue a $9,750,000 bond “…to invest in land conservation, working waterfront preservation and preservation of state parks. The money would be collected from a 0.5% tax increase on candy bars, soda and potato chips.” The majority of the students said they would support this measure, with 69.0% stating they would vote in favor if possible. The groups being assigned randomly, there was only a small discrepancy between the groups in whether they would vote for the issue. In treatment Group 1, 65.4% stated they would vote in favor of the measure, compared to treatment Group 2, where 70.2% said they would vote in favor of the measure. The slight difference between the groups was not statistically significant.
at $p<0.4606^2$. However, that small percentage difference completely changed after the groups viewed the advertisements.

The effect of the advertisements on other political behaviors was measured. However, contrary to findings of previous authors (Brader 2006), participants were no more likely to volunteer or donate after viewing each ad. Participants were asked after viewing the advertisement how likely they would to volunteer before election day, on a scale of very unlikely, unlikely, somewhat unlikely, undecided, somewhat likely, likely and very likely. Neither advertisement had any influence on the participant’s likelihood to donate or volunteer to a campaign.

After viewing the commercials, 70.9% ($p<0.0242$) of Group 1 said they would vote in favor of the proposition. In contrast, in Group 2, only 55.8% ($p<0.0242$) of respondents stated they would vote in favor of the proposition. Of those originally in favor of Question 3 in Group 1, 92.5% ($p<0.0099$) stated they would vote for the proposition after viewing the advertisement if the vote were to be held today. In contrast, only 76.7% ($p<0.0099$) of those in Group 2 originally in favor of Question 3 said they would vote for the proposition after viewing the negative advertisement. In Group 1, 30.6% ($p<0.0124$) of those who originally were against the proposition changed their minds after viewing the positive advertisement to voting in favor of the proposition. Only 6.5% ($p<0.0124$) of those in Group 2 who also originally opposed Question 3 changed their minds to voting in favor of it.

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$^2$ All $p$ values are based on two tailed tests.
The effect of the advertisements on other political behaviors was measured. However, contrary to findings of previous authors (Brader 2006), participants were no more likely to volunteer or donate after viewing each ad. Participants were asked after viewing the advertisement how likely they would to volunteer before election day, on a scale of very unlikely, unlikely, somewhat unlikely, undecided, somewhat likely, likely and very likely. Neither advertisement had any influence on the participant’s likelihood to donate or volunteer to a campaign.

**Discussion**

Contrary to expectations, the positive advertisement worked to motivate people to vote as well as change their minds about the proposition. Before viewing the advertisements, both
groups in general were willing to vote for the initiative. However, after viewing the advertisements, those in Group 1 were much more likely to vote for the initiative, with 70.9% stating they would. In comparison, Group 2 was much more evenly split, with 55.8% stating they would vote in favor of the advertisement, compared to the original 70.2% in Group 2 who originally stated they would vote for the measure. Watching the negative advertisement, even though it was in favor of Question 3, caused people to become more likely to vote against the proposition.

This could have resulted for a variety of reasons. According to Marcus and Mackuen (1993) individuals often vote the same as their prior decisions. However, when individuals do change their minds it is often because of their emotional state (Marcus and Mackuen 1993 681). If a voter does not feel anxiety, they will vote on their pre-existing dispositions. If the individual experiences anxiety, he or she will tend to evaluate information more rigidly and not necessarily rely on previous dispositions (Marcus and Mackuen 1993 681). The positive advertisement could have reinforced existing attitudes the participants felt when they originally were asked whether or not they would vote for Question 3. However, the anxiety brought upon while watching could have caused the viewers to reevaluate their existing position and choose to vote against the proposition, or in favor of the status quo.

An interesting part about this survey, not found in other studies, is that the negative advertisement caused people to change their vote even though the negative advertisement asked the viewers to vote in favor of Question 3. It is possible that the participants confused the message of the advertisement, or that the negative tone of the advertisement alone put them in a state of mind in which they would be adverse to voting for the proposition. In future studies,
questions should be included as to whether the subjects believed the advertisement they saw was for or against the proposition.

This study focused on potential differences in partisanship as well as in income bracket levels. Other variables, such as race, age and gender should be explored in future studies. Additionally, future studies should attempt to include regular members of the public to enhance the variety of income levels and diversity.

After conducting this study, it can be concluded that emotional advertisements can significantly influence voting behavior. According to the study, the survey respondents rated environmental issues a seven on a scale of one to ten, ten being the least important. Environmental issues were not a priority of the majority of people who took the survey. The tone of the advertisements changed people’s votes. The positive advertisement motivated more people to vote yes on Question 3, whereas the negative advertisement caused more people to be undecided or vote no on Question 3, even though it promoted voting yes on the proposition. The use of anxiety and enthusiasm cues clearly influenced people’s vote, however, with partisan politics removed, the change of votes was even more dramatic than previous studies have found.

However, the dramatic effect of emotions on changing voter behavior could very well be temporary. In a future study, an additional post-test should be given two weeks later to see if the impact of the advertisements was lasting. Also, because of the precautions taken with Qualtrics, it would be difficult for the participants not to pay attention to the advertisement. A future study where the advertisements would be paired with a group of other advertisements, or perhaps take place during a short television show, would be ideal to see how effectively advertisements work in their actual settings.
References


Appendix A

Block One and Block Two Pretest and Post-Test Questionnaire

Generally speaking, how would you describe your mood today? Please mark all any and all applicable emotions.

- Worried
- Angry
- Happy
- Calm
- Confused
- Bored
- Sad
- Affectionate
- Ashamed
- Excited
- Amused
- Hopeful
- Disappointed
- Confident

Please mark the range of your total family income to the best of your knowledge. If you are a dependent, please include your parents’ or guardians’ income.

- Less than $20,000
- $20,000-$39,999
- $40,000-$59,999
- $60,000-$79,999
- $80,000-$99,999
- $100,000 and over

How many years have you lived in Indiana?

What is your present occupation (job) or career?

Thinking about religion, what do you consider yourself?

Are you of Spanish or Hispanic descent?

- Yes
- No

Generally speaking, do you usually think of yourself as a Republican, Democrat, independent, or other? (The answer to this question provided skip logic to the other questions.)
- Republican
• Democrat
• Independent
• Other

(If answered Democrat) Would you call yourself a strong Democrat?
• Yes, I would call myself a strong Democrat.
• No.

(If answered Republican) Would you call yourself a strong Republican?
• Yes, I would call myself a strong Republican.
• No.

(If Independent or other) Do you tend to vote, or would you vote if eligible, more for the Republican Party or Democratic Party?
• More Democratic
• More Republican

Please tell us which of the two statements below comes closest to your opinion. You might agree to some extent to both, but we want to know which one is closer to your views.
• The less government, the better.
• There are more things the government should be doing.

Please rate the following issues in their matter of importance to you, with 1 being the most important, and 10 being the least important.
• Crime
• Education
• The economy
• The national debt
• Global climate change and pollution
• Abortion
• Military spending
• Taxes
• Threat of terrorism
• Gay rights

Here are some questions about Indiana and U.S. politics. If you are not sure of the answer at this time, feel free to write down “don’t know” in the blank.

Who is currently president of the United States?
How many members are elected to the Indiana Senate?
What government position does Eric Holder currently hold?
How many justices are there on the U.S. Supreme Court?
Who holds the position of Speaker of the House in Indiana?
Which party controls the U.S. Senate right now?
In the race for governor, who was officially nominated by the Indiana Democratic Party in 2008?

Are you aware of any ballot initiatives that will be on the ballot for the November 2012 election? Please note any information about them here.

We are in an election year. So as far as you know now, do you expect to vote in this election?  
A) Will definitely vote in this election/Ineligible to vote in this election, but would definitely vote if eligible
B) Likely to vote in this election/Ineligible to vote in this election, but would likely vote if eligible.
C) Somewhat likely to vote in this election/Ineligible to vote in this election, but somewhat likely to vote if eligible.  
D) Neutral, could go either way/Ineligible to vote in this election, but would be neutral
E) Somewhat unlikely to vote in this election/Ineligible to vote in this election, but would vote if eligible.  
F) Unlikely to vote in this election/Ineligible to vote in this election, but unlikely to vote even if were eligible  
G) Will definitely not vote in this election, even if eligible

Question 3, Indiana’s Land Bond, is a ballot measure which would call for issuing a $9,750,000 bond issue to invest in land conservation, working waterfront preservation and preservation of state parks. The money would be collected from a 0.5% tax increase on candy bars, soda and potato chips. Would you vote in favor of this legislation if possible?  
- Yes
- No

Are you registered to vote in Indiana?  
A) Yes
B) No
C) Don’t know

(If answered “No” or “Don’t know,”) How likely is it that you will register to vote for this years elections on a scale of 0 to 6, where 0 means you definitely will register to vote, and 6 means you definitely will not register to vote? If you are ineligible to vote in the 2012 election, chose how likely you would be to register if eligible.

0   1   2   3   4   5   6

In the remaining months until the November Election Day, how likely is it that you will volunteer for a candidate or ballot proposition committee on a scale of 0 to 6, where 0 means you definitely will volunteer, and 6 means you definitely will not volunteer?

0   1   2   3   4   5   6
In the remaining months until the November Election Day, how likely is it that you will donate to a candidate or ballot proposition committee on a scale of 0 to 6, where 0 means you definitely will donate, and 6 means you definitely will not donate?

0   1   2   3   4   5   6

Please indicate whether you agree or disagree with the following statement. “People should vote whenever there is an election.”
A) Disagree strongly
B) Disagree somewhat
C) Neither agree or disagree
D) Agree somewhat
E) Agree strongly

People have different ideas about the government. These ideas don’t refer to Democrats or Republicans in particular, but just to the government in general. How much of the time do you think we can trust the government to do what is right?
A) None of the time
B) Only some of the time
C) Most of the time
D) Just about always

People often feel they can put more trust in some institutions than others. In general, how much do you trust the institutions or people below? Please indicate by circling a number between 0 and 6, where “0” means distrust completely and “6” means trust completely.

- The media
- Public schools
- Courts
- Police
- Elected officials
- Companies
- Commercials

Please think about the ad you just saw for a moment. How did the ad make you feel? Mark any and all of the emotions you felt in response to the advertisement.

- Hopeful
- Reassured
- Confident
- Anxious
- Worried
- Afraid
- Enthusiastic
- Excited
- Eager
If the election for Question 3, Indiana’s Land Bond, which was described in the advertisement you just saw, was held today and you were eligible to vote, would you vote in favor or the Land Bond or against the Land Bond?
• In favor of the Land Bond.
• Against the Land Bond.
• I would not vote.