SUMMARY

Hyperlinks are standard fare on news websites. They can help site visitors find more information and learn more about important issues facing their communities. And from a business perspective, hyperlinks can increase time on site.

What affects whether a person clicks on a link? Certainly the topic matters, as does where a link appears on a page. Prompts and labels that introduce hyperlinks also can have an effect. Labeling links as “Most Popular,” for instance, encourages people to click on the links to see what others find interesting.

Hyperlinks can be organized and labeled in many different ways. Take The Washington Post, for example. Opinion columns are categorized on left- and right-leaning opinion pages. The opposing partisan pages are hyperlinked, with the following prompt introducing the link: “Disagree with our opinions here? Check out our [left-leaning / right-leaning] opinions.”

Hyperlink prompts are interesting from a democratic perspective. We know that people are more likely to look at information agreeing with their political viewpoint than they are to look at counter-attitudinal information, or information that opposes one’s own point of view. Could hyperlink prompts, developed based on theories from communication, political science, and psychology, lead people to look at opposing viewpoints?

The Engaging News Project investigated new ways of labeling hyperlinks. What if instead of “Most Popular” or “Check out our left-leaning opinions,” hyperlinks were preceded with “Follow the issues that worry you,” for example? Research suggests that messages like this can affect what articles people select and what they take away from the news.

We asked: Are there hyperlink labeling strategies that have both business and journalistic implications? We tested whether six different prompts, like “Follow the issues that worry you,” influenced citizens’ appetite for hard news content and for news from different partisan perspectives. We also examined whether these prompts increased time on site, increased the number of page views, or improved assessments of site credibility.

Results of the project signal that prompts have complicated effects. Some prompts did not have any effect on business outcomes, like time on site, and others had a negative impact. And although some prompts increased the amount of time visitors spent with hard news content, other prompts led people to see opposing political views as less legitimate. Not one prompt of those that we tested had uniformly beneficial effects.
CONCLUSIONS

News organizations must carefully consider their objectives, and then test hyperlink prompts before deploying them on their sites.

If you’re only objective is to affect people’s perception of how legitimate the other side is, then an accuracy prompt like “Form accurate opinions by reading different viewpoints” would be a leading candidate. But if you were hoping that this prompt would have a business implication, such as increasing the number of clicks on your site, we don’t have any supportive evidence.

If you wanted site visitors to believe that there are many benefits from keeping up with the news and diverse views, then an anxiety prompt (“Follow the issues that worry you”) or a normative prompt (“Promote a better democracy, read different viewpoints.”) may be just the ticket, at least for some subgroups. But watch out – both prompts decrease the amount of time that some site visitors are willing to spend with counter-attitudinal articles and there is scant evidence of business implications. Finally, if you want people to see your site as more credible, try “Thanks for keeping up with the news. Be proud of protecting your democracy.” This prompt, however, also reduces the number of clicks on a site. Hardly good business. Even democratically speaking, the prompt is problematic. Although people seeing it spend less time with entertainment news compared to hard news content, they also see their own views as more legitimate.

In sum, it may seem innocuous to include a short phrase before hyperlinks, but our research indicates otherwise. The presence of a single phrase on a site can have both business and journalistic implications. And if these results are any indication, effects are far from simple. A desirable outcome, such as seeing a site as more credible, can be coupled with an undesirable one, such as fewer page views. Any change in hyperlink labeling should be carefully tested.

RECOMMENDED PRACTICES

Our experimental results indicated that our prompts affected different people in different ways, leading to a mixed bag of democratic and commercial outcomes. Because of the complex nature of these results, we are not able to make any across-the-board recommendations for the use of prompts. We have provided, however, a table (see page 12) summarizing the results of our findings. This table should assist newsrooms in determining whether any of the prompts that we tested could help them reach their goals.
The findings presented in this report are part of the Engaging News Project. The Engaging News Project has a single aim: to provide research-based techniques for engaging online audiences in commercially-viable and democratically-beneficial ways. The project tests web-based strategies for informing audiences, promoting substantive discourse, and helping citizens to understand diverse views. At the same time, we analyze business outcomes, such as clicks and time on page. Systematic testing provides valuable information about what works ... and what doesn’t. And by advancing both journalistic and business goals, the techniques are designed with contemporary newsrooms in mind.

The Engaging News Project is housed at the Annette Strauss Institute for Civic Life at the University of Texas at Austin and is directed by Dr. Natalie Jomini Stroud. Funded by the Democracy Fund, this report is the second in a series of four written for the New America Foundation about the Engaging News Project. It covers our research on how different prompts affect hyperlink use. More information about our research and how you can get involved can be found at www.engagingnewsproject.org.
Hyperlinking is standard practice on news webpages, having increased dramatically since the mid-1990s. In the following section, we review studies on the use and effects of hyperlinks on news websites. Throughout, we emphasize what we know about how hyperlinks are organized and labeled on news websites and the influence these labels have on user behavior and perceptions.

Hyperlinking Practices

Newsrooms make extensive use of hyperlinks, whether linking to a news article, to documentation backing up a claim, or to an advertisement. The reasons for using hyperlinks are multiple. Communication scholars Tsan-Kuo Chang, Brian Southwell, and their colleagues conducted a survey of newspaper editors and television news directors to understand what they thought about hyperlinking. The results revealed that many believed that hyperlinking helped to provide information to readers, to offer alternative perspectives, and to assist site visitors in forming better understandings of the news.

There are many standard practices in the use of hyperlinking in newsrooms. Not unexpectedly, news hyperlinks typically are internal, whether to a parent company, to other articles on the same site, or to opportunities to email newsroom staff. An in-depth analysis of newspapers’ hyperlinking practices related to the news surrounding Timothy McVeigh’s execution provides an important perspective about news sites’ practices. The research found that most hyperlinks (90%) were text-based and many (95%) appeared in the sidebars, rather than embedded in the text.

Although most news organizations employ hyperlinks, there is some variability depending on the parent organization. Stories on broadcast news sites historically have included more hyperlinks in comparison to print news stories, for instance, and citizen journalists include more links in their articles compared to online newspapers located in the same locale.

Of particular interest for the present project is how hyperlinks are organized and presented to site visitors. To understand current practices, we analyzed the content of 107 randomly selected local television news station websites to examine their linking practices. Many had “Top Stories” sections prominently displayed on their homepage. These often consisted of hyperlinked stories selected by news staff. Stations also organized hyperlinks into topic-based categories (e.g. Local News, U.S. News, etc.) to facilitate visitor browsing. Groups of links typically were featured around the perimeter of the webpage.

Hyperlinking can help to provide information to readers, to offer alternative perspectives, and to assist site visitors in forming better understandings of the news.
We paid particular attention to the words, or prompts, used to describe available hyperlinks. One of the most common prompts we found was “Most Popular,” which was included on 78 percent of sites. The “Most Popular” list often was found when scrolling down the station homepage or embedded within articles featured on the site. In addition to promoting stories viewed most frequently by site visitors, some sites also provided hyperlinks to stories that were garnering the most comments (11%).

Another hyperlink prompt frequently found on the sites was to “Related” or “Recommended” content. In some instances, this content was selected by newsroom staff to correspond with the topic of an article. A story about a local crime, for example, was linked to related content about other crimes in the community. In other instances, recommended hyperlinks were automatically generated to correspond with a site visitor’s browsing behavior. In total, 57 percent of sites included a “Related” or “Recommended” prompt prior to a list of hyperlinks.

**SUMMARY**

Newsrooms commonly employ text-based hyperlinks on their websites. And while there is no standard practice for presenting or describing hyperlinks to site visitors, many newsrooms use prompts such as “Most Popular” or “Recommended” to attract attention to the hyperlinks.

**HYPERLINKING EFFECTS**

By directing how site visitors navigate a website, hyperlinks can affect both business and democratic outcomes.

**Time on Site**

From a business angle, existing research demonstrates that links can increase the amount of time visitors spend on a news site. In particular, personalized links – those that are tailored to individuals based on their previous browsing behavior – have the potential to increase users’ engagement with a website.

**Learning**

From a democratic angle, the presence of interactive online features, like hyperlinks, can help citizens to learn about politics. A series of studies demonstrate that hyperlinked news helps people learn in a different way than non-hyperlinked news. Those using non-hyperlinked news retain more factual information compared to those interacting with a hyperlinked site. Experienced browsers using a hyperlinked news site, however, gain more “knowledge structure density,” or an understanding of how various concepts fit together. Those with higher levels of knowledge structure density are more likely to see that diverse political topics, such as international relations, gasoline prices, and environmental protection, are related to one another. The rationale is that experienced browsers use hyperlinks to seek more information that gives them greater perspective on how topics relate.
Perceptions of Credibility
As news organizations deploy hyperlinks on their sites, one potential concern is whether the presence of hyperlinks affects perceptions of site credibility. One study asked respondents to evaluate six different websites for how credible they found each site. Impressions of how easy it was to access and share information, an indicator of a site’s hyperlinking aptitude, related to seeing aggregator sites Yahoo! News and Google News as more credible. Ease of accessing information was unrelated to assessments of site credibility for traditional news sites like the New York Times and USA Today, however. In sum, hyperlinks can positively relate to credibility, but are not guaranteed to do so.

Popularity Does Not Equal Importance…
The possibility of tracking hyperlink use has provided new opportunities for news organizations to understand site visitors’ preferences. For example, do the articles viewed most frequently by site visitors match the articles featured on news websites? Research says no. Northwestern University professor Pablo Boczkowski and Limor Peer from Yale University compared “Most Popular” stories on news sites with stories prominently displayed on the sites. Visitors selected more soft news stories than the news sites featured. This study suggests a potential mismatch between the priorities of online news editors and the priorities of site visitors.

…but Popularity Fuels Popularity
Boczkowski and Peer’s findings show that articles appearing in “Most Popular” lists do not always link to hard news content. We also know that articles featured in “Most Popular” lists can attract even more page views.

In one clever study, participants browsed a website consisting of seven news articles. Although the articles remained the same for each study participant, the number of times that each article had been viewed was randomly varied. For example, some study participants saw that an article titled “High school principal ponders loss of job” had been viewed by 64 others. Other study participants, however, saw that the same article had been viewed by 232 others. The more frequently each article was said to have been viewed, the more likely study participants were to select the article. Interestingly, least-seen articles also were more likely to be selected by study participants. The results demonstrate that information accompanying hyperlinks can affect decisions about clicking on a news link. Here, “Most Popular” content can increase page views.

SUMMARY
The use of hyperlinks can have business and democratic benefits. Previous research has shown that hyperlinking practices are related to where people click, their preferences for entertaining versus hard news, and their assessments of site credibility. In our study, we also are interested in how hyperlink prompts could affect exposure to likeminded and counter-attitudinal information.
Research over the past several years consistently has demonstrated that people are more likely to select media messages that match their beliefs and to avoid messages that contradict their views, a behavior known as selective exposure. 15

This is not to say that people always avoid information that runs contrary to their views. Although people do prefer likeminded messages, they still view messages with an opposing point of view from time to time. 16 Yet when encountering messages with which one disagrees, people do not always process the messages in an unbiased manner. Indeed, some research has shown that when faced with counter-attitudinal messages, people can become even more convinced of the validity of their own views and more certain that the opposition’s take is objectionable. 17 This is known as biased processing, where the interpretation of information is filtered based on one’s personal preferences.

Questions have arisen about how to curtail selective exposure and biased processing of political information. Few research studies have examined how to use prompts in a news setting in a way that reduces biased processing. One exception is a study conducted by Edith Manosevitch. 18

Manosevitch analyzed how the inclusion of different prompts on a news website would affect what people thought. She analyzed what happened when visitors encountered two different prompts on a news webpage. The first, labeled a reflective cue, stated that the news organization was “committed to thinking about issues with readers.” The second, labeled a citizenship cue, said that the news organization was “committed to democracy and citizenship.” Citizens who saw the reflective cue gave more thought to the article and perceived the media to be more important to citizens than people who did not see the reflective cue. These results, however, were dependent on the topic of the news story – they appeared when the topic was Social Security, but disappeared for same-sex marriage. Although the results were not consistent, the overall findings are encouraging: Prompts have the potential to affect how people reason when approaching news articles.

SUMMARY
People are inclined to use media that match their beliefs and to avoid media that run counter to their beliefs. They also tend to interpret media through the lens of personal biases. Research into the effects of news prompts indicates that prompts can play a role in how people think when approaching news media.
To begin the Engaging News Project’s investigation into hyperlinking practices, we first combed through the research literature to find previous strategies that have worked to encourage people to seek out and think about information in unbiased ways. Our search yielded six different theoretical approaches. Based on this previous research, we developed a series of hyperlink prompts that could be employed on news websites. In particular, we designed prompts about:

1. Taking pride in one’s values and actions. Self-affirmation research suggests that people with a bolstered sense of self-worth are more open to views unlike their own.19

2. What good citizens should do. This is a type of injunctive social norm, or statement about socially approved or disapproved attitudes and behaviors. Reminding people of these norms can affect their attitudes and behaviors.20

3. How looking at different points of view can help one form more accurate opinions. Motivating people to think about accuracy can lead to more balanced consideration of counter-attitudinal views, research shows.21

4. Preparation for situations where people would want to display their news understanding. When people are accountable to others, they are more evenhanded in their consideration of information.22

5. What other people do. Highlighting descriptive social norms, or factual descriptions of others’ behaviors or attitudes, can motivate people to reconsider their own thoughts and actions.23

6. Fears and anxieties. Those feeling anxious are more inclined to spend time with news and information both for and against their views.24 Fear combined with guidance on how to resolve the fear is especially effective at motivating behavior.25

Based on these theories and research, we developed six different news prompts. Below, we provide an overview of our research, present the literature supporting each approach and then summarize our study’s findings.
STUDY OVERVIEW

To test our news hyperlink prompts, we conducted a pilot test followed by a laboratory experiment. We describe each, and provide an overview of our findings, in the following section. Full details about the studies and samples can be found in the appendix.

Pilot Test

As a first step, we showed people the prompts shown in the table below and asked them to write a paragraph about their reactions. We wanted to understand people’s gut reactions to these words and phrases. We then categorized responses as favorable, meaning that the response expressed agreement with the prompt’s basic ideas, unfavorable, meaning that the response argued against the prompt, or other, which included responses not directly engaging the prompt. As shown in the summary table below, responses varied widely. Some prompts received favorable reviews, while others sparked substantially less favorable reactions.

<table>
<thead>
<tr>
<th>PROMPT</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Affirmation</td>
<td>83%</td>
</tr>
<tr>
<td>“Thank you for keeping up with the news. You should be proud that you’re doing your part to protect democracy.”</td>
<td><img src="https://via.placeholder.com/15" alt="thumb" /> <img src="https://via.placeholder.com/15" alt="thumb" /></td>
</tr>
<tr>
<td>Injunctive Social Norm</td>
<td>82%</td>
</tr>
<tr>
<td>“It’s our duty as citizens and as patriotic Americans to read diverse political perspectives. Be a good citizen and read a different perspective today.”</td>
<td><img src="https://via.placeholder.com/15" alt="thumb" /> <img src="https://via.placeholder.com/15" alt="thumb" /></td>
</tr>
<tr>
<td>Accuracy</td>
<td>80%</td>
</tr>
<tr>
<td>“To hold a valid opinion on an issue, it is very important to have an accurate and objective view of various opinions. Read a different perspective today.”</td>
<td><img src="https://via.placeholder.com/15" alt="thumb" /> <img src="https://via.placeholder.com/15" alt="thumb" /></td>
</tr>
<tr>
<td>Accountability</td>
<td>50%</td>
</tr>
<tr>
<td>“Don’t be caught unaware during your next political discussion – protect your reputation by following the news here.”</td>
<td><img src="https://via.placeholder.com/15" alt="thumb" /> <img src="https://via.placeholder.com/15" alt="thumb" /></td>
</tr>
<tr>
<td>Descriptive Social Norm</td>
<td>38%</td>
</tr>
<tr>
<td>“Most Americans prefer to get news from sources that do not share their political point of view. Follow their lead and read about the other side today.”</td>
<td><img src="https://via.placeholder.com/15" alt="thumb" /> <img src="https://via.placeholder.com/15" alt="thumb" /></td>
</tr>
<tr>
<td>Anxiety</td>
<td>21%</td>
</tr>
<tr>
<td>“If you’re feeling afraid about your job security, a nuclear Iran, recent shootings in public places, or other issues, stay informed here.”</td>
<td><img src="https://via.placeholder.com/15" alt="thumb" /> <img src="https://via.placeholder.com/15" alt="thumb" /></td>
</tr>
</tbody>
</table>
Based on these results, we narrowed our focus from six prompts to four by eliminating the accountability and descriptive social norm prompts. Although the anxiety prompt was not favorably reviewed in the pilot test, we opted to continue with it given the volume of literature suggesting that it should work.

**Laboratory Test**

With revised versions of the four remaining prompts, we conducted an online experiment with 681 participants to find out whether the prompts affected people’s behavior.

All participants first answered a series of questions, including items asking them to report their attitudes about the Affordable Health Care Act. We chose this issue strategically and discuss our reasons in the appendix. Later, participants were asked to browse a website. All participants first saw an article matching their health care views. Those favoring the Affordable Care Act saw an article favoring the act and vice versa for those opposed to the legislation.

To design the study, we created a mock news website called *Political Beat*. In fact, we created five different versions of *Political Beat*. The versions were identical in every way but one: each version included a different prompt preceding a list of hyperlinks. In addition, one version included no prompt preceding the list of links. We refer to this version as the “control site.” At random, study participants browsed one of these five websites.

An image of the full website can be found in the appendix; here we show two examples of the only part of the site that varied: the way in which the hyperlinks were labeled.
We tested whether the prompts changed how people used the site by unobtrusively tracking their online behavior. After participants finished browsing the website, we asked them a host of questions to see if the prompts affected their reactions to the site, views about those holding opposing views, norms about news use, and how credible they found the site.

We also analyzed whether specific kinds of people reacted differently to the prompts. In particular, we looked at whether reactions to the prompts differed among: (1) those with high versus low political knowledge, (2) those with strong, weak, and no partisan leanings (3) those in favor of or opposed to the Affordable Care Act (the focal issue on the mock site), and (4) males versus females.

Our test is ambitious. We wanted to find a prompt that did it all: increased the number of links clicked on a site, improved assessments of site credibility, increased time with hard news over entertainment, increased time with political views unlike one’s own, led people to see oppositional views as more legitimate – even if they disagreed, and greater endorsement of beliefs about the benefits of news and exposure to diverse views. A prompt having even some of these outcomes and no negative effects could be seen as successful.

**Lab Test Findings**

Below, we summarize our findings. The results show what happens when we compare the attitudes and behaviors of those surfing the website with the various prompts to those surfing the website without any prompt. We include only statistically significant findings.

As the summary of effects illustrates, the prompts produced complex outcomes. For example, the anxiety prompt encouraged more clicks by partisans, but less clicks by those with weaker or no partisan views. In short, there was a pattern of prompts having both positive and negative effects. Because of this, we cannot recommend the use of any of these prompts in a wholesale fashion. Newsrooms should carefully consider their objectives, and in consultation with the table below, test any prompts to ensure that they are achieving their intended effects.

NOTE: In the pages below the table, we provide more detailed analyses and conclusions about our results for interested readers.
### Lab Test Summary Findings

<table>
<thead>
<tr>
<th></th>
<th><strong>Accuracy</strong></th>
<th><strong>Anxiety</strong></th>
<th><strong>Injunctive Social Norms</strong></th>
<th><strong>Self-Affirmation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Form accurate opinions by reading different viewpoints.”</td>
<td>“Follow the issues that worry you.”</td>
<td>“Promote a better democracy, read different viewpoints.”</td>
<td>“Thanks for keeping up with the news. Be proud of protecting your democracy.”</td>
</tr>
<tr>
<td>Number of clicks</td>
<td></td>
<td>Strong partisans click more, Independents click less</td>
<td></td>
<td>Fewer clicks</td>
</tr>
<tr>
<td>Credibility of Site</td>
<td></td>
<td></td>
<td></td>
<td>Site rated more credible</td>
</tr>
<tr>
<td>Time with Entertainment News, Counter-attitudinal Articles</td>
<td></td>
<td>Independents spend less time with counter-attitudinal articles</td>
<td>Women spend more time with counter-attitudinal articles</td>
<td>Less time with entertainment news</td>
</tr>
<tr>
<td>Argument Legitimacy</td>
<td>Those favoring the Affordable Care Act see arguments favoring their own view as less legitimate.</td>
<td></td>
<td>Women see their views as more legitimate than the views of the opposition</td>
<td>Respondents see their views as more legitimate than the views of the opposition</td>
</tr>
<tr>
<td>Norms</td>
<td></td>
<td></td>
<td>Men and those high in political knowledge agree more about the benefits of keeping up with the news and diverse views</td>
<td>Men are more in agreement about the benefits of keeping up with the news and diverse views</td>
</tr>
<tr>
<td>Attitudes about Health Care Issue</td>
<td>Men rate political issue as less important</td>
<td>Men and those with high political knowledge rate political issue as less important</td>
<td></td>
<td>Stronger attitudes about health care</td>
</tr>
</tbody>
</table>
IN-DEPTH ANALYSIS OF PILOT TEST AND LAB RESULTS

For interested readers, we have provided here detailed analyses of the effects summarized in the table on the previous page. In the sections that follow, you will find explanations of the results for each of the six original prompts, as well as an overall conclusion to this study that seeks to explain its complex findings.

ACCOUNTABILITY

When people feel accountable for their opinions or actions, they think and behave differently than they might otherwise. In particular, people expecting to be held accountable more carefully scrutinize arguments, rather than dismissing counter-attitudinal arguments without adequate reflection.

We wondered if the same feeling could be inspired by a prompt on a news website.

To evoke feelings of accountability, past studies have told experimental participants to expect to explain and justify their opinions face-to-face with another person later in the study. These studies created the expectation among participants that they would be held accountable for their views and opinions in a one-on-one situation. One study, for example, increased feelings of accountability among respondents by telling them: “In the communication phase of the experiment you will be asked to explain and justify your opinions to another subject.”

Pilot Test

Based on this research, we developed a prompt designed to increase feelings of accountability. Since our study did not actually involve subsequent interactions, we could not state that the users would be engaging in a conversation at a later point in time. Instead, we simply reminded users that they could be held accountable and that they would want to ensure that they had the correct information if/when that occurred.

We developed the following prompt:

ACCOUNTABILITY PILOT TEST PROMPT: “Don’t be caught unaware during your next political discussion – protect your reputation by following the news here.”

A pilot test with 32 respondents revealed some potential problems with this prompt. Although 50 percent wrote favorable responses, 44 percent counter-argued the prompt. For example, one respondent writing in support of the prompt noted: “I think it is saying that it’s best to be aware of the latest news before you get into conversation about politics and wind up looking like a boob because you are not informed.”

Yet counter-arguments we encountered included the following: “The most important reason to be politically aware is to not look dumb when talking to your friends about it. That’s kind of a silly reason. One should be politically aware so that they can make educated voting decisions and be aware of that is happening in your town, county, state, country.”

Based on respondents’ mixed reactions to this prompt, we did not further pursue it in the full laboratory test. It is possible that the threat of one-on-one interaction that took place in prior research is necessary for accountability to affect reactions.
As humans, we generally strive to be “right.” It doesn’t feel good to be proven wrong. To prevent this, and the disappointment that comes with it, we often have goals to be as accurate as possible. Psychologists have discovered that accuracy goals have interesting effects on us – they make us seek out a greater variety of information and lead us to think more carefully about our opinions.\(^{30}\)

Accuracy goals have been induced in numerous ways in prior research. One noteworthy example comes from University of Wisconsin-Madison scholar Young Mie Kim, who told study participants: “To make a valid voting decision, it is very important to have an accurate and objective view of candidates.”\(^{31}\) Kim found that an accuracy focus led people to conduct a more unbiased search for information – exactly what we hope to find in the current project.

**Pilot Test**

We used wording similar to Kim in our pilot test:

**ACCURACY PILOT TEST PROMPT:** “To hold a valid opinion on an issue, it is very important to have an accurate and objective view of various opinions. Read a different perspective today.”

In the pilot test, respondents reacted positively to the accuracy prompt. Of the 102 people who provided their reaction, 80 percent of the reactions were favorable, 11 percent counter-argued the prompt, and 9 percent were unrelated. For example, one respondent wrote: “There is a lot of truth in the statement that we should all make ourselves aware of different opinions. Sometimes learning about a different perspective only strengthens our own position as we learn more information about why our own opinion is the right one (by learning about faulty reasons others have). Sometimes, however, exposing ourselves to different perspectives can change our own opinions for the better.”

Based on these results, we moved forward with testing the accuracy prompt in the full laboratory setting.

**Lab Test**

For the lab test, we shortened the prompt considerably in order to make it more usable by a news site with limited space:

**ACCURACY LAB TEST PROMPT:** “Form accurate opinions by reading different viewpoints.”

Overall, no main effects emerged when comparing the accuracy condition, where respondents browsed the site containing the above prompt, and the control condition, where respondents browsed a site identical in all ways except not containing the prompt above. The prompt did, however, have an effect that depended on respondents’ sex and opinions about the Affordable Care Act.
**Time and Clicks**
Compared to those receiving no prompt, those receiving the accuracy prompt were no different in terms of where they clicked and how long they spent with the articles.

**Emotions and Credibility**
There also were no differences between the accuracy and control conditions in respondents’ emotional responses to the website or their perceptions of the site’s credibility.

**Health Care Attitudes**
There were no differences between the control and accuracy conditions in terms of participants’ attitudes toward health care and the strength of these attitudes. One difference emerged in terms of the perceived importance of health care, but it was dependent on the respondent’s sex. As shown in the figure, men in the accuracy condition rated the health care legislation as less important than men in the control condition. The average importance rating was similar for women regardless of whether they saw the website without a prompt or a website with the accuracy prompt.

**Legitimacy**
The accuracy prompt affected how people rated the legitimacy of their views and the views of others compared to those seeing the website without a prompt. The effects depended on whether respondents favored or opposed the health care legislation, however. For those who opposed the legislation, the accuracy prompt led opponents to see greater merit in the views of supporters who favor the law. The accuracy prompt led those favoring the legislation to evaluate arguments favoring the law a bit less positively.
**ANXIETY**

Negativity has a bad reputation. Political attack ads and stressful current events often make people anxious and fearful about politics. But what if negative feelings lead to positive political behaviors? Recent research suggests exactly this.\(^{35}\) Namely, citizens who feel anxious about politics and current events are likely to look at political information from many perspectives, rather than sticking to information with which they agree. We wanted to know whether news outlets could use this important finding to encourage citizens to look at political information from other political views. Can online news outlets use anxiety about politics to encourage news users to seek out more information?

Experimental work on emotions has manipulated anxiety in a variety of ways. One way is to prompt respondents with a version of the following: “We would like you to describe something that has made you feel afraid when thinking about current events. Please describe how you felt as vividly and in as much detail as possible. Think about important issues facing the nation, politics, and international affairs. It is okay if you don’t remember all the details, just be specific about what exactly it was that made you afraid and what it felt like to be afraid. Take a few minutes to write out your answer.”\(^{36}\) We draw upon the language of prior work on anxiety which suggests that the most powerful prompt would not only induce anxiety, but also would provide a way to remedy the feeling.\(^{37}\)

**Norms**

There were no differences between the accuracy condition and the control condition in what respondents thought about norms regarding keeping up with the news and looking at multiple points of view.

**SUMMARY**

From a business angle, we have no evidence to recommend use of the accuracy prompt. Time on site, assessments of site credibility, and the number of clicks were unaffected by the accuracy prompt. All of these metrics on the site with the accuracy prompt were indistinguishable compared to the same site without any prompt.

From a democratic angle, only an extremely modest case could be made recommending the accuracy prompt. In the prompt’s defense, it appears to increase perceptions of the legitimacy of the other side among those opposing the legislation and to decrease perceptions of the legitimacy of one’s own side among those favoring the legislation. Yet among men, the prompt also reduces the importance of health care as a political issue. Overall, this research is unable to provide a ringing endorsement of the accuracy prompt.
Pilot Test
For the pilot test, we used the following prompt:

**ANXIETY PILOT TEST PROMPT:** “If you’re feeling afraid about your job security, a nuclear Iran, recent shootings in public places, or other issues, stay informed here.”

The first part of our pilot test was to examine whether the issues we identified as most troubling in the prompt were the issues citizens actually believed were anxiety-producing. We asked a subset of respondents \((n=31)\) who had not seen the prompt to tell us about something that made them feel afraid, using the question wording from prior literature reviewed above. The results were clear: the issues mentioned in the prompt were the most common issues mentioned by respondents as to what made them fearful. Fifty-two percent of the responses were about the economy, recent shootings, or a nuclear Iran.

Although it seemed that we correctly captured anxiety-producing issues, the pilot test indicated troubling signs for the anxiety prompt. Of the 33 participants that saw this prompt, 55 percent had unfavorable reactions, 21 percent wrote favorable responses, and 24 percent noted something unrelated.

Here is a response from one respondent that demonstrates the sort of counter-argument we saw: “This statement makes me think about how much fear is put into our minds from news media. There is hardly ever any ‘good’ news in the media. There is a huge disproportion when it comes to the good and bad news we are fed every day. I feel like a big part of this is to drive us to consume more products. We are given bad news and filled with fear and then shown ads about how great our lives would be if we owned a specific product.”

The negative response to the prompt dampened our optimism about the potential for this prompt to encourage diverse news exposure. Given the extensive research suggesting that anxiety can have positive effects, however, we proceeded with the full laboratory test despite the pilot test results.

Lab Test
For the full laboratory test, we revised the prompt to be shorter and more general:

**ANXIETY LAB TEST PROMPT:** “Follow the issues that worry you.”

As with the accuracy prompt, all effects of this prompt were contingent on who was browsing the site – whether the person was male or female, strongly partisan or not, and politically knowledgeable or not.
Time and Clicks
The anxiety prompt affected how respondents spent their time on the site, but it depended on whether study participants identified as strong partisans, weak or leaning partisans, or as Independents. As shown in the following figure, Independents spent less time with counter-attitudinal articles on the site with the anxiety prompt compared to Independents seeing a site without a prompt. The pattern reverses as the strength of partisanship increases such that strong partisans spent slightly more time with counter-attitudinal articles when the site included the anxiety prompt compared to a site without a prompt.38

A similar relationship appears when looking at the number of clicks, as opposed to the amount of time spent with counter-attitudinal articles. Although the anxiety prompt increased the number of clicks among strong partisans, it decreased the number of clicks among Independents.39

Emotions and Credibility
There were no differences between the anxiety and control conditions in terms of respondents’ emotional responses to the website and their perceptions of site credibility.

Health Care Attitudes
Those in the anxiety condition and those in the control condition did not differ in their attitudes toward the health care legislation, nor did they differ in the strength of their attitudes about the legislation. Some differences did emerge on how important participants’ found the legislation. These differences were conditional, however. They depended on the participants’ sex and political knowledge. We explain each in turn.

As shown in the figure on the next page, men in the anxiety condition rated the legislation as less important than men in the control condition; no differences appeared for women.40

When those with high political knowledge were exposed to the anxiety prompt, they rated health care as less important compared to those with similar levels of political knowledge in the control group. Those with low political knowledge displayed little difference in their ratings of the importance of the legislation – if anything, they rated health care as slightly more important when exposed to the anxiety prompt compared to those viewing the control website.41
Legitimacy

There were no differences between the anxiety and control conditions in terms of how legitimate respondents’ found arguments favoring their own view and how legitimate respondents’ found arguments favoring the opposition.

Norms

Respondents indicated whether they agreed or disagreed with four different statements about the importance of keeping up with the news and with different political perspectives. There were some differences in study participants’ endorsement of these normative ideas, but they were conditional based on the respondents’ sex and political knowledge.

As shown in the figure below, men in the anxiety condition agreed more strongly with these normative ideas compared to men in the control condition. There were no significant differences in women’s endorsement of these ideas between the control and anxiety conditions.

In terms of political knowledge, those with more political knowledge were more apt to endorse these norms for keeping up with the news and other points of view in the anxiety condition compared to the control. The difference among those with lower levels of political knowledge was not significant.
SUMMARY
These results may seem troubling at first blush. As we’re testing anxiety, one may believe that we should have seen some increase in negative emotions among those in the anxiety condition compared to the control. Remember, however, that we not only aimed to prompt anxiety, but also to provide respondents with a cure for that anxiety: additional information search. For this reason, we are not troubled by the lack of significant findings with respect to emotions.

From a business perspective, the results here depend on the context. An anxiety prompt could encourage more clicks among those with strong partisanship, but does the exact opposite for those with weaker partisan views or no partisan views. If a site was well aware that visitors tended to be strong partisans – or had a way to personalize the site contents based on strength of partisanship – a bottom line case could be made for using the anxiety prompt.

From a democratic angle, however, the results are decidedly mixed. Although the anxiety prompt increases agreement with normatively desirable ideas about news use and time with counter-attitudinal articles among some groups, it concurrently decreases time with counter-attitudinal articles among others.

SELF-AFFIRMATION
Although pride may be one of the seven deadly sins, research suggests that it is not always such a bad thing. When we feel good about ourselves, we are more open to understanding different perspectives and giving other views a fair shake. The experience of seeing one’s self positively is what psychologist Claude Steele described as self-affirmation. Self-affirmation may be a key way to help people process alternative perspectives.

In comparison to many of the other prompts we considered, we found the most variability in how self-affirmation had been approached in previous research. First, participants in some studies were asked to identify and then write a paragraph about a value of importance. Second, participants in other studies unscrambled sentences containing words that primed values previously found to be meaningful. Third, in yet other analyses, participants were asked to reflect on instances that made them feel proud or that reflected positively on themselves.

Pilot Test
As participants find many different values to be important, we created a prompt more in line with the third idea from prior literature:

SELF-AFFIRMATION PILOT TEST PROMPT: “Thank you for keeping up with the news. You should be proud that you're doing your part to protect democracy.”

Results of the pilot test signaled the potential benefits of the prompt. Eighty-three percent of respondents (n=35) supported the prompt. Seventeen percent wrote a counter-argument. For example, one supportive respondent wrote, “You need to be aware of what is going on. If I hear about issues I know how I should vote or if I need to take action.”
Lab Test
For the full test, we modestly shortened the prompt to make it easier for a news site to incorporate:

SELF-AFFIRMATION LAB TEST PROMPT: “Thanks for keeping up with the news. Be proud of protecting your democracy.”

Time and Clicks
The self-affirmation prompt did have an effect on how participants allocated their time on the site and how many times respondents clicked on the links provided. Those viewing the self-affirmation prompt spent less time with entertainment compared to those in the control condition, who did not see any prompt before the hyperlinks.48

The self-affirmation prompt also affected the amount of time spent with counter-attitudinal articles, but the effect was dependent on participants’ strength of partisanship. Those without a major party affiliation who identified as Independents spent less time with counter-attitudinal articles when encountering the self-affirmation prompt in comparison to those not seeing a prompt (the control condition). The pattern is weaker for those with weak and leaning partisan identities. The pattern reverses for those with strong partisan identities, among whom the self-affirmation prompt modestly increases time with counter-attitudinal views.49

Those in the self-affirmation condition clicked on fewer articles in comparison to those on a website containing no prompt before the hyperlinks.50
Emotions and Credibility
Those who saw the self-affirmation prompt reported more pride and hope after viewing the website in comparison to those in the control group.\textsuperscript{51}

Those in the self-affirmation condition also found the site to be more credible in comparison to those in the control condition.\textsuperscript{52}

Health Care Attitudes
Women in the self-affirmation condition were more favorable toward health care legislation in comparison to women in the control condition.\textsuperscript{53} The differences for men were not statistically meaningful.

There also were differences between the self-affirmation and control conditions in terms of how strongly respondents’ held their attitudes about health care. Those in the self-affirmation condition reported stronger attitudes in comparison to those in the control condition.\textsuperscript{54}
Legitimacy
When looking at the perceived legitimacy of views in favor of one’s position and of views opposed to one’s position, the self-affirmation prompt again made a difference. For this measure, we looked at how legitimate respondents rated views of their own side, on average, and then how legitimate respondents rated the views of the opposition, on average. We subtracted them from one another, so that large, positive numbers indicate that a person believes that their views are far more legitimate than the view of the opposition. As shown in the figure, those in the self-affirmation condition rated their own views as more legitimate than the opposition compared to those in the control condition.55

Norms
There were no differences between those in the self-affirmation condition and those in the control condition in terms of whether they endorsed normative statements about keeping up with the news and attending to diverse political viewpoints.

SUMMARY
The self-affirmation prompt seems to do what is expected of it; those seeing the prompt reported more pride and hope compared to those not seeing the prompt. Beyond this, however, the self-affirmation prompt doesn’t have much going for it.

From a business angle, there is evidence that respondents’ perceived the self-affirmation site to be slightly more credible than the control site. Further, an organization desiring to increase hard news use may celebrate that this prompt decreases time spent with more entertaining fare. But it also means fewer clicks on a page – typically not something an online business wants to promote.

From a democratic angle, the prompt fares no better. Its record is mixed with respect to prompting people to take a look at counter-attitudinal information. The self-affirmation prompt encourages this behavior among strong partisans but has precisely the opposite effect among weak partisans by significantly decreasing time spent with alternative views compared to the control. The prompt also affected attitudes, making women more apt to favor the legislation compared to the control. The most troubling democratic results, however, are the increases in attitude strength and in viewing one’s side as more legitimate than the opposition. It seems that the prompt, by affirming one’s self, also makes one more assured of the validity of one’s view.
By placing appeals to social norms on websites devoted to news, we hoped to encourage citizens to seek out more political information. We examined both *injunctive social norms*, statements about socially approved or disapproved attitudes and behaviors and *descriptive social norms*, or factual descriptions of others’ behaviors or attitudes. Hopefully, by reminding citizens of the democratic virtues of information seeking and informing them that many people already seek out information from many points of view, news organizations could both encourage users to stay on their website longer and help them learn more about current events in the process.

**Pilot Test**

Our first task in testing the effects of a descriptive norm was to find appropriate statistical evidence about what most people do. Data from the Pew Research Center’s Internet and American Life Project fit the bill. The results of a survey showed that “34% of online political users said that most of the political news and information they get online comes from sites that share their point of view—compared with 30% who typically get news from sites that don’t have a point of view, and 21% who get news from sites that differ from their point of view.” Further, “about six-in-ten (62%) say they prefer getting political news from sources that do not have a particular point of view. A quarter (25%) say they prefer getting news from sources that share their political point of view.” On the basis of these results, we devised the following prompt:

**DESCRIPTIVE NORM PILOT TEST PROMPT:** “Most Americans prefer to get news from sources that do not share their political point of view. Follow their lead and read about the other side today.”

On the pilot test, respondents were asked to write a paragraph about this prompt. The results of the pilot test were dismal. Fifty-six percent of respondents ($n=104$) counter-argued the prompt and 38 percent expressed a sentiment consistent with the prompt.

For example, one respondent wrote, “If this were true Fox News would not be as popular as it is today. People watch the news from sources that share their political point of view and manipulate them in extreme fashions.”

On the basis of the dominant negative response to this prompt, we did not pursue it further in the full laboratory test. Happily, the injunctive norm prompt fared better in the pilot test.

**INJUNCTIVE NORM PILOT TEST PROMPT:** “It’s our duty as citizens and as patriotic Americans to read diverse political perspectives. Be a good citizen and read a different perspective today.”

The pilot test results suggested that the injunctive norm had potential. Eighty-two percent of the 103 respondents who evaluated this statement had favorable reactions. Sixteen percent offered some counter-argument or criticism of the statement. As an example of how respondents felt about this prompt, one wrote, “This is a good perspective to have. By looking at different sides, we can better learn why we support the position that we do.”

Based on the largely favorable responses, we proceeded with the experiment for the injunctive norm prompt.
Lab Test
For the lab test, we shortened the injunctive norm slightly so that it would be simpler for a news organization to include prior to a list of hyperlinks:

**INJUNCTIVE NORM LAB TEST PROMPT:** “Promote a better democracy, read different viewpoints.”

**Time and Clicks**
The injunctive norm condition did produce some changes in looking at counter-attitudinal views, but only among women. Women in the injunctive norm condition were more likely to look at counter-attitudinal views and to spend time with them compared to the control site. No such changes occurred for men.

**Emotions and Credibility**
There were no differences in perceptions of the credibility of the website or emotional responses to the site when comparing the responses of those viewing the website with the injunctive norm prompt and those viewing the control website that did not contain a prompt.

**Health Care Attitudes**
Similarly, the injunctive norm prompt did not yield any different attitudes about the health care legislation compared to the control.

**Legitimacy**
Respondent sex again emerged as an important factor in the effects of the injunctive norm prompt on the perceived legitimacy of one’s own views and the views of others. Women in the injunctive norm condition rated the legitimacy of their views, on average, 1.81 points higher than they rated the legitimacy of the other side’s views. Women in the control condition rated them only 1.26 higher. In other words, women in the injunctive norm condition see their views as more legitimate than the opposition and do so more than women in the control condition. The differences for men are not statistically meaningful.
Norms
Yet again for norms, respondent sex conditioned the effect. Men in the injunctive norm condition endorsed beliefs about keeping up with the news and diverse views more than men in the control condition; no differences appeared for women.59

SUMMARY
Results for the injunctive norm prompt depended on whether the respondent was a male or female. Women spent more time with counter-attitudinal articles when in the injunctive norm condition, but came away thinking that their views were more legitimate than the opposition compared to women in the control condition. Men endorsed the norms promoted in the prompt more in the injunctive norm condition, but the prompt didn’t affect their time on site or perceptions of the legitimacy of other views compared to the control. Although some of these effects – looking at alternative perspectives and endorsing norms about doing so – are desirable, other outcomes – bolstering perceived legitimacy of one’s own view compared to the opposition – are decidedly less so. Further, little business rationale can be offered for using the injunctive norm prompt on the basis of these results.

CONCLUSIONS
The objectives of this research were twofold. First, we wanted to find prompts with democratic benefits, such as encouraging more time with hard news versus entertainment and bridging political divides in news consumption and interpretation. Second, our hope was to find prompts that had business benefits by increasing the number of page views or improving perceptions of a site’s credibility. The theoretical basis of this research held great promise: studies in psychology, political science, and communication had uncovered evidence that norms, emotions, accountability, accuracy, and self-affirmation could affect people’s political behavior and perceptions.
Some of the findings uncovered here could be read as confirming the results of prior research. However, not all findings lead to clear recommendations. The accuracy prompt did promote more balanced consideration of one’s view vis-à-vis the opposition, yet it had no business implications. The anxiety prompt did encourage some respondents to click more. At the same time, some respondents spent less time with counter-attitudinal articles. Self-affirmation did make people feel more proud and hopeful and led them to spend less time with entertainment. Affirmed respondents also thought more of their own views, however, reporting stronger attitudes and awarding the arguments of their own perspective even more legitimacy than the views of the opposition. And the social norms prompt did increase agreement with news norms for some participants, but left some participants convinced of the greater validity of their own views.

What happened here? Why did we not find a prompt that would encourage respectful engagement with alternative views? Three possibilities present themselves; each is reviewed in turn.

Possibility 1: Prompts were misguided.
Based on a careful review of the research, we tried to create prompts that drew from prior work and, at the same time, were short enough that a news station could reasonably include them on a website. In crafting our prompts, we went through numerous iterations and brainstormed extensively on how to make prompts that were clear, short, and consistent with the research literature. Despite our best efforts, we may have missed the boat and created prompts that simply did not work.

We are skeptical, however, that the design of the prompts is the main explanation for our mixed results. We say this for several reasons. First, our pilot testing of the phrases did not produce any indication that respondents were confused about the meaning of the prompts.

Second, the results were mixed both for those prompts where we drastically changed the wording from prior literature and for those prompts where we stayed true to previous work. Our efforts at creating a prompt for accountability and anxiety, for instance, involved notable departures from previous work. In other cases, such as accuracy, however, we were able to draw considerably on previous literature in crafting the wording of the prompt. Regardless of our fidelity to prior work, no prompt produced results that were in line with both democratic and business goals. Yet the prompts did have effects – not all effects were necessarily desirable, however.

Third, there are indications that the prompts worked as expected throughout the findings. Self-affirmation increased hope and pride. The injunctive norms and anxiety prompts increased endorsement of the normative statements, at least among some subgroups. And for some respondents, the accuracy prompt related to legitimacy ratings.

Although we encourage testing of additional prompts, we suspect that other phrases will run afoul of some of the same mixed results we uncovered here.
Possibility 2: Article topic affected the results.
In this study, participants first encountered a pro-attitudinal article about health care. If they were opposed to the health care legislation, they saw an article discussing problems with the legislation. If they favored the legislation, the article touted the benefits of the law. We strategically chose health care as the topic of the initial article for several reasons detailed more extensively in the appendix, such as the partisan controversy about the issue. One may worry that the prompts did not work as planned for the health care issue, but that the prompts may have worked had we chosen another issue at the outset. The current research design cannot rule out that possibility. And previous work looking at cues did find differences in how people reacted to a prompt based on the article topic. What we can note is that to the extent that it is true that the effects of the prompts vary based on the issue, the effects are even more complicated than documented here. This would mean that newsrooms would have to be extremely cautious in using the prompts based on the web page’s subject. This would only confirm our assertion that prompts have complex effects.

Possibility 3: Context and objectives produce unique results.
Another possibility, and the one we find most compelling, is that the context used in this study – prompts encountered while browsing a news site – is distinct. Although some prior research did look at news content, few studies examined the effects of prompts in the context of browsing a news website. Further, we analyzed both democratic and business outcomes, a combination that has not been the subject of previous research.

In some ways, it is disheartening not to have a prompt to recommend to newsrooms that will provide democratic and commercial benefits to a general audience. But knowing that reactions to these prompts are finicky is valuable. All of the prompts considered here produced complex results. Newsrooms should carefully consider their objectives and then test any proposed hyperlink prompt to make sure that it has the desired effect.
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We describe the two different studies that were conducted as part of this research in more detail below for those interested in the more technical aspects of the research described in this report.

**Pilot Test**

We first began with a pilot test using Amazon.com’s crowd-sourcing platform Mechanical Turk (mTurk). Through mTurk, respondents are paid for completing short tasks, such as participating in research studies. Although the respondents are not representative of the broader population, they are more diverse than sampling strategies confined to a specific age-range or location.\(^{61}\)

The pilot test was used to narrow down the list of possible prompts and to understand, qualitatively, what respondents thought of the various statements. For each prompt, we asked respondents to write a paragraph about their reaction to it. The pilot testing revealed that some prompts showed great promise – respondents told us that they understood the prompt, thought it was important, and agreed with its sentiment. For other prompts, however, respondents reacted negatively, counter-arguing the prompt and disagreeing with its premise.

**Laboratory Test**

Based on the results of the pilot testing, we moved forward to a complete laboratory test with four prompts: accuracy, anxiety, self-affirmation, and injunctive social norms. In the complete lab test, we allowed respondents to browse a website that was identical in all respects other than the prompt preceding a list of hyperlinks. In addition to unobtrusively tracking respondent behavior, we also asked a host of questions regarding respondents’ beliefs about important political issues and the site. This allowed us to examine the business and democratic effects of the prompts.

**Stimuli Development**

For the laboratory test, we needed to select an issue to use to examine people’s pro- and counter-attitudinal perspectives. We wanted an issue (a) on which partisans held different views, (b) where information was available, but not widely known, and (c) about which citizens and political leaders were concerned. The Affordable Care Act met all three criteria. First, Pew Research Center data from March of 2012 illustrated that 47 percent of the public approved of the “health care legislation passed by Barack Obama and Congress in 2010” while 44 percent disapproved.\(^{62}\) Second, polling conducted by a partnership of the Robert Wood Johnson Foundation, GfK, Stanford University, and the Associated Press demonstrated some uncertainty over the provisions contained in the legislation, such as whether children under 26 could be included on their parents’ insurance and whether U.S. citizens with low incomes would receive subsidized health insurance.\(^{63}\) Further, polling by the Kaiser Family Foundation revealed that four in ten reported that they felt confused about the health reform law in October of 2012.\(^{64}\) Finally, health care was a topic during the 2012 political campaign, was featured in the media, and was an issue considered important to citizens.\(^{65}\)
After selecting the issue, we created two separate opinion articles: one favoring the Affordable Care Act and one opposed to the act. The articles were created on the basis of existing articles from sources such as the Wall Street Journal, Politico, ABC News, the Los Angeles Times, and CNN. The articles were created to be similar on a host of “Readability Statistics.” As displayed in Table A1, the articles were nearly identical on many attributes.

<table>
<thead>
<tr>
<th></th>
<th>Anti</th>
<th>Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words</td>
<td>323</td>
<td>323</td>
</tr>
<tr>
<td>Paragraphs</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Sentences</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Sentences/Paragraph</td>
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<td>2.7</td>
</tr>
<tr>
<td>Words/Sentence</td>
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<td>17</td>
</tr>
<tr>
<td>Characters/Word</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Passive Sentences</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table A1. Pro- and Anti-Health Care Articles

Readability Statistics

We then pre-tested the headlines and articles with 155 respondents in September 2012, again using Amazon.com’s mTurk. As shown in Table A2, the headlines were perceived as biased in the expected directions. Further, all were seen as modestly interesting and easy to understand. The articles also were perceived as biased in the expected directions. Again, all were seen as at least modestly interesting and easy to understand.

Table A2. Pro- and Anti-Health Care Headline and Article Perceptions

<table>
<thead>
<tr>
<th></th>
<th>Headlines (n=61)</th>
<th>Articles (n=155)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-ACA</td>
<td>Pro-ACA</td>
</tr>
<tr>
<td>Bias</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Favors (0) or against (10) law</td>
<td>9.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Favors Democrats (0) or Republicans (10)</td>
<td>9.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Against Obama (0) or Favors Obama (10)</td>
<td>2.5</td>
<td>8.0</td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hard (0) or Easy (10) to understand</td>
<td>8.8</td>
<td>8.3</td>
</tr>
<tr>
<td>Boring (0) or Interesting (10)</td>
<td>6.7</td>
<td>6.6</td>
</tr>
</tbody>
</table>

In addition to creating comparable articles on health care, we also found four other articles to include on the site, accessible via hyperlinks. Two were selected as hard news topics: “Bernanke defends Fed rate policies” and “Green card applications fast-tracked.” The final two articles were soft news topics: “Renovated monastery resorts” and “College basketball coaches get a pass.” This enabled us to examine the effects of the hyperlink prompts on soft and hard news selections and also made for a more realistic setting.
Images of the pro- and anti-health care web pages, with the two prompt locations circled in red can be found in Images A1 and A2.

Image A1. Pro-Health Care Page, Accuracy Prompt

Image A2. Anti-Health Care Page, Anxiety Prompt
Lab Test Participants
Six hundred and eighty-one people were included in the final analysis for the lab study. Participants were recruited through Survey Sampling International (SSI), an online survey panel vendor, to mirror the latest sample of U.S. Internet users as identified by the Pew Research Center’s Internet & American Life Project August 2012 tracking survey. As shown in Table A3, the sample demographics generally match the Pew data, although the respondents here are slightly older and slightly more educated. Data for this study were gathered in late October and early November of 2012.

To gain a better understanding of the background characteristics of our sample, we also measured the respondents’ political knowledge using nine quiz questions (e.g. which party has the most members in the Senate, what political position is now held by John Boehner, etc.) that could not be obtained from any of the experimental stimuli.

Correct answers were summed to create a measure of knowledge. On average, respondents answered five of the nine questions correctly. Finally, we measured respondents’ political ideology from very conservative (1) to very liberal (5) and partisanship from strong Republican (5) to strong Democrat (1). Average ideology was 2.96 and average partisanship was 3.27. There were no differences among the experimental conditions with respect to any of the demographic, political knowledge, or political orientation variables.

Lab Test Key Measures
Based on these responses, respondents next viewed a pro-attitudinal article about the health care legislation. In other words, respondents who favored the legislation viewed an article heralding the benefits of the law. Respondents opposed to the legislation viewed an article describing some detrimental aspects of the law. As shown in Images A1 and A2 on the previous page, each article contained active hyperlinks to five other articles. The key manipulation in this study was the prompt introducing the hyperlinks. Participants randomly saw one of the four prompts or a website that included no prompt before the hyperlinks. We programmed the study so that respondents had between 90 to 300 seconds to browse the site. During this time, their clicks were unobtrusively tracked. We analyzed how much time respondents spent on the site as a whole, with the counter-attitudinal article (the article opposed to [favoring] the health care legislation for those favoring [opposing] it), and with the entertainment articles.
Emotions And Credibility
Afterward, respondents answered questions about whether they found the site credible and the degree to which they experienced various emotions while reading the site.

Health Care Attitudes
Later in the survey, following the time with the site, respondents were asked to report whether they favored or opposed the national health care reform legislation that was passed by Congress and signed into law in 2010, as well as how strongly they favored or opposed the law. In addition, respondents were asked to indicate how important they believed that the health care legislation was.

Legitimacy
Respondents were asked to list up to three reasons why someone would favor the 2010 health care law and up to three reasons why someone would oppose the law. For each reason listed, respondents rated how legitimate they found the reason. They were told, “Regardless of your own view on this issue, we would like you to tell us how strong or weak an argument you think that this reason is.” In addition, we asked respondents to read three arguments favoring the legislation (e.g. “The law bars health insurers from denying coverage or charging more to anyone based on their health status. Those with pre-existing conditions, like cancer, diabetes, and asthma, will be able to get insurance.”) and three arguments opposing the law (e.g. “The law may cost taxpayers $4.8 billion over the next ten years.”). Respondents rated each argument as strong or weak.

We next looked separately at how respondents rated arguments that coincided with their views and arguments that opposed their views. For respondents favoring the health care legislation, we first looked at how strongly they rated arguments favoring the law. Similarly, we looked at how legislation opponents rated arguments opposed to the law. Combining these, we could see whether participants found pro-attitudinal views to be legitimate.

We then looked at how pro-legislation respondents rated anti-legislation arguments and how anti-legislation respondents rated pro-legislation arguments. This formed our measure of legitimacy ratings of counter-attitudinal views.

For both pro- and counter-attitudinal ratings, we analyzed the average legitimacy rating as well as the maximum legitimacy rating. In addition, we subtracted the counter-attitudinal rating from the pro-attitudinal rating. This gave us an indication of how much more legitimate respondents found arguments for their own position relative to the arguments of the opposition.

Norms
Respondents were asked to indicate how much they agreed or disagreed with four statements articulating norms about news use: (1) People in the U.S. think it is a good idea to understand multiple points of view on political issues, (2) People in the U.S. think it is important to keep up with news and current events, (3) People in the U.S. approve of news that shows multiple points of view on political issues, and (4) To have an accurate opinion, it is important to look at different points of view on political issues.

These measures allowed us to evaluate each of the prompts, as described in this report.


4 Dimitrova et al., 2003.


26 Lerner & Tetlock, 1999.


29 Tetlock, 1983, p. 76.


31 Kim, 2007.

32 The interaction between condition (control vs. accuracy) and sex (male vs. female) was significant in an ANCOVA controlling for age, education, income, race/ethnicity, political knowledge, partisanship, ideology, opinion on the legislation, and strength of partisanship ($F(1, 244)=3.98, p<.05$).

33 The interaction between condition (control vs. accuracy) and attitudes toward the legislation (favor vs. oppose) was significant in an ANCOVA controlling for the previously noted covariates ($F(1, 209)=6.98, p<.01$).

34 The interaction between condition (control vs. accuracy) and attitudes toward the legislation (favor vs. oppose) was significant in an ANCOVA controlling for the previously noted covariates ($F(1, 244)=4.89, p<.05$).


36 Valentino et al., 2008, p. 255.
The interaction between condition (control vs. anxiety) and strength of partisanship was significant in an ANCOVA controlling for the previously noted covariates ($F(1,240)=4.69, p<.05$). The result continues to hold if a dichotomized variable indicating whether or not a respondent clicked on a counter-attitudinal article is used (as opposed to the ratio-level variable employed in the figure).

The interaction between condition (control vs. anxiety) and strength of partisanship was significant in an ANCOVA controlling for the previously noted covariates ($F(1,240)=4.12, p<.05$).

The interaction between condition (control vs. anxiety) and sex (male vs. female) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,240)=5.63, p<.05$).

The interaction between condition (control vs. anxiety) and political knowledge was significant in an ANCOVA controlling for the previously noted covariates ($F(1,240)=3.91, p<.05$). The political knowledge measure was split at the median for the purposes of the graph.

The interaction between condition (control vs. anxiety) and sex (male vs. female) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,240)=10.26, p<.01$).

The interaction between condition (control vs. anxiety) and political knowledge was significant in an ANCOVA controlling for the previously noted covariates ($F(1,240)= 11.75, p<.01$). The political knowledge measure was split at the median for the purposes of the graph.


Condition (control vs. self-affirmation) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,243)=4.39, p<.05$). The same relationship holds for a dichotomized version of whether or not one viewed entertainment ($M=.13$ for self-affirmation, $M=.24$ for control, $F(1, 243)=4.45, p<.05$).
The interaction between condition (control vs. self-affirmation) and strength of partisanship was significant in an ANCOVA controlling for the previously noted covariates $F(1, 242)=4.70, p<.05$. Testing the relationship with time with a dichotomized counter-attitudinal views variable (either did or did not click on a counter-attitudinal article) does not produce a significant interaction between condition (control vs. self-affirmation) and strength of partisanship, controlling again for the same battery of covariates $F(1, 242)=2.43, p=.12$.

Condition (control vs. self-affirmation) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,243)=4.81, p<.05$).

Condition (control vs. self-affirmation) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,243)=3.04, p<.05$, one-tailed).

Condition (control vs. self-affirmation) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,243)=3.52, p<.05$, one-tailed).

The interaction between condition (control vs. self-affirmation) and sex (male vs. female) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,242)=5.81, p<.05$).

Condition (control vs. self-affirmation) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,243)=5.97, p<.05$).

Condition (control vs. self-affirmation) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,203)=3.07, p<.05$, one-tailed).


The interaction between condition (control vs. injunctive norm) and sex (male vs. female) was marginally significant in an ANCOVA controlling for the previously noted covariates ($F(1,239)=3.54, p<.10$). Testing the relationship with time with a dichotomized counter-attitudinal views variable (either did or did not click on a counter-attitudinal article) does produce a significant interaction between condition (control vs. anxiety) and strength of partisanship, controlling again for the same battery of covariates $F(1, 239)=6.67, p<.05$. Here, on average, 58.0 percent of women clicked on the counter-attitudinal article in the injunctive norm condition and only 37.7 percent did so in the control, a significant difference ($p<.05$); 26.8 percent of men clicked on a counter-attitudinal article in the injunctive condition and 38.8 percent did so in the control, a non-significant difference.

The interaction between condition (control vs. injunctive norm) and sex (male vs. female) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,199)=5.14, p<.05$).

The interaction between condition (control vs. injunctive norm) and sex (male vs. female) was significant in an ANCOVA controlling for the previously noted covariates ($F(1,239)=5.74, p<.05$).

Manosevitch, 2009.


Polling by Rasmussen Reports in September, 2012 found that 66 percent of the public rated health care as very important. Available online at: http://www.rasmussenreports.com/public_content/politics/mood_of_america/importance_of_issues. Health care also was mentioned in all of the presidential debates during the 2012 campaign.

Using the criteria of exceeding 1.5*IQR, we excluded respondents who spent more than 2,500 seconds on the study, who clicked 10 or more times on the website, or who spent more than 23 seconds on the question following the website (they were automatically advanced after 300 seconds on the website). We also excluded respondents who had logging problems. Although this did result in notable case loss (n=281), it allowed us to analyze the most relevant data and did not result in much change in the demographic composition of the sample (see Table A1).

Demographics obtained from the Pew Research Center’s Internet & American Life Project August 2012 tracking survey. The Pew Research data asked a combined race/ethnicity question where we asked two separate questions. We recalculate the racial composition of the Pew data for non-Hispanic identifiers to compare with our data.

Five, five-point semantic differential items assessed credibility (site was unfair/fair, biased/unbiased, inaccurate/accurate, doesn’t tell the whole story/tells the whole story, cannot be trusted/can be trusted). In this study, Cronbach’s α for this measure was .84, indicating a reliable measure. Across all conditions, average credibility was 3.62 (SD=.80) with higher values indicating more credibility. For support of this measure, see: Gaziano, C. & McGrath, K. (1986). Measuring the concept of credibility. Journalism Quarterly, 63, 451-462; Meyer, P. (1988). Defining and measuring credibility of newspapers: Developing an index. Journalism Quarterly, 65, 567-575; Tsfati, Y. (2003). Does audience skepticism of the media matter in agenda setting? Journal of Broadcasting & Electronic Media, 47, 157-176.
Respondents were asked to indicate the degree to which they experienced each of six different emotions while reading the site: afraid, angry, outraged, proud, hopeful, and worried (from 1=not at all to 7=very much). Proud and hopeful were significantly correlated ($r=.75$, $p<.01$) and were averaged to form a single measure ($M=3.97$, $SD=1.75$). The four remaining negative emotions also were averaged to form a single measure ($Cronbach’s \alpha=.92$, $M=3.14$, $SD=1.76$).

On average, respondents reported feeling 2.97 about the law (1=strongly oppose, 5=strongly favor, $SD=1.58$). We also analyze how strongly people feel by “folding” the attitude measure (e.g. 1=neither favor nor oppose, 2 = somewhat favor or oppose, 3 = strongly favor or oppose). On average, respondents held relatively strong attitudes ($M=2.43$, $SD=.65$). Finally, on the importance measure, the average response was 3.73 (1=very unimportant, 5=very important, $SD=1.37$).

The other two opposing arguments were: (1) “The individual mandate, the requirement that individuals must have health insurance, is expensive for small businesses. When a company hires a fiftieth employee, that company will face a penalty of $40,000 per year and likely will pass the cost along to customers”.” and (2) “Estimates suggest that the taxes imposed by the bill would cost anywhere between 47,000 and 249,000 jobs.” The other two favorable arguments were: (1) “Nearly 13 million Americans will receive $1.1 billion in rebates from insurance companies – an average of $151 for each family policy. This is because of the law’s requirement that at least 80 percent of health care premiums paid by consumers must go toward medical care or quality improvement measures”.” and (2) “People under the age of 26 without access to coverage can enroll in their parents’ plans. As a result, as many as 3.1 million young adults now will have health care coverage.”

Ratings of arguments favoring the legislation were related ($Cronbach’s \alpha=.80$), as were ratings of arguments opposing the legislation ($Cronbach’s \alpha=.81$). On average, respondents rated pro-attitudinal arguments 4.67 ($SD=1.08$) and counter-attitudinal arguments 3.09 ($SD=.98$). The average maximum rating for pro-attitudinal arguments was 6.32 ($SD=1.09$) and for counter-attitudinal arguments was 4.94 ($SD=1.89$). For similar measurement strategies, see Arceneaux, K. (2012). Cognitive biases and the strength of political arguments. *American Journal of Political Science, 56*, 271-285; Mutz, D. C. (2007). Effects of “in-your-face” television discourse on perceptions of a legitimate opposition. *American Political Science Review, 101*, 621-635.

Responses were averaged to form a single measure ($Cronbach’s \alpha=.85$, $M=4.77$, $SD=1.41$, 1=strongly disagree to 7 = strongly agree).