Two sides to every story

Causes and consequences of selective exposure to balanced political information

Brenes Peralta, C.M.

Citation for published version (APA):
Chapter 2

Selective Exposure to Balanced Content and Evidence Type: The Case of Issue and Non-Issue Publics about Climate Change and Health Care
Abstract

We examine three under-studied factors in selective exposure research. Linking issue publics and motivated reasoning literatures, we argue that selectivity patterns depend on 1) whether an individual is an issue public member, 2) on the availability of balanced, pro- and counter-attitudinal content, and 3) on the evidence for a message claim (numerical vs. narrative). Using an online experiment ($N = 560$), we track information selection about climate change and health care. Most notably, on both issues, issue publics selected more balanced content with numerical evidence, compared to non-issue publics. We discuss the implications of our findings for the selective exposure literature.

Keywords: Selective exposure, issue publics, motivated reasoning, evidence type

This chapter is published (online first) as:

Selective Exposure to Balanced Content and Evidence Type: The Case of Issue and Non-Issue Publics about Climate Change and Health Care

Scholars in communication and political science have increasingly focused on selective exposure, i.e., the tendency of media consumers to select information that is in line with their predispositions (e.g., Arceneaux & Johnson, 2013; Garret & Stroud, 2014; Knoblock-Westerwick & Kleinman, 2012; Levendusky, 2013; Stroud, 2008). Although extensive research, using a variety of methods, has aimed to capture the extent to which citizens choose like-minded political content, the debate about the prevalence of selective exposure is largely inconclusive. Whereas some studies have suggested that many citizens choose messages that resonate with their prior attitudes (e.g., Iyengar & Hahn, 2008), other research has shown this pattern is confined to small groups of strong partisans (e.g., Prior, 2013). Yet other studies have found that people pay attention to both pro- and counter-attitudinal information (DiMaggio & Sato, 2003; Stroud, 2011), and when given the chance, substantial numbers select balanced content that presents supporting and opposing arguments about an issue (Feldman et al., 2013; Garret & Stroud, 2014; Levendusky, 2013).

Most germane to our argument, some research has shown that selective exposure is not a “one size fits all” phenomenon, and instead different groups may engage in different selectivity patterns (e.g., Arceneaux & Johnson, 2013; Kim, 2007, 2009; Knoblock-Westerwick & Kleinman, 2012; Valentino et al., 2009). We aim to extend this work by addressing three under-studied factors. Specifically, we examine whether selectivity patterns depend on 1) whether an individual is a member of an issue public, 2) the availability of balanced content, in addition to pro- and counter-attitudinal content and 3) the evidence type for a message claim, whether numerical or narrative.

Our overarching framework draws on the literature on issue publics, which defines issue publics as groups of citizens who are well informed and knowledgeable about personally important matters (e.g., Converse, 1964; Hutchings, 2003; Iyengar, 1990; Krosnick, 1990; Krosnick & Telhami, 1995). Some studies have shown that issue publics disproportionately select information about issues that matter to them (e.g., Kim, 2009). We extend this research to the context of selectivity. We examine whether content selection among issue publics depends on the type of information, whether balanced, pro- or counter-attitudinal, as well as on evidence type for a message claim.

We first draw on motivated reasoning theory, according to which people can be driven by accuracy and defensive goals when selecting information (Kruglanski & Klar, 1987; Kunda, 1990). We link this theory with research on issue publics and selectivity to examine, first,
selection of balanced content among issue and non-issue publics. Few studies have offered participants the possibility to select balanced content (e.g., Feldman et al., 2013; Garrett & Stroud, 2014; Levendusky, 2013), and, to our knowledge, no study has assessed selection of balanced content among issue publics. Yet, in the U.S., substantial numbers consume mainstream media, and selection of partisan outlets is limited to a small subset of citizens (Arceneaux & Johnson, 2013; Prior, 2007, 2013; Stroud, 2008).

Second, we examine the extent to which selective exposure among issue and non-issue publics depends on evidence type. We draw on research on the relative appeal of numerical versus narrative evidence, largely pioneered in health communication (e.g., Allen & Preiss, 1997; Knoblock-Westerwick et al., 2015; Knoblock-Westerwick & Sarge, 2015; Reinhart, 2006; Taylor & Thompson, 1982). Numerical evidence describes quantitative data about large samples (Allen et al., 1997). In turn, narrative evidence is defined as a coherent story structured around individual experience, and conveyed by a person who is first-hand affected by an issue (see Kreuter et al., 2007). Lastly, we pull these scholarships together to test whether issue publics, likely motivated by both defensive and accuracy goals, choose more balanced content with numerical evidence, compared to balanced content with narrative evidence.

We rely on data from an online experiment with 560 U.S. participants. We measured issue attitudes, as well as attitude importance and attitude strength (in order to capture issue publics) about climate change and health care reform. Then, participants had a chance to select multiple articles, while we unobtrusively logged their selection behaviors. Each article contained either 1) balanced, pro- or counter-issue arguments, and 2) numerical or narrative evidence. Before reviewing the data and our findings, we integrate the issue publics literature with motivated reasoning theory to predict selection patterns of balanced, pro- or counter-attitudinal messages, among issue and non-issue publics. We then integrate this theoretical framework with evidence from health communication to predict selection of messages with numerical or narrative evidence.

**Issue Publics**

According to the issue publics literature, citizens are composed of issue publics, or groups that are well informed and knowledgeable about issues that are important to them, and less informed about issues that are unimportant (e.g., Converse, 1964; Hutchings, 2003; Iyengar, 1990; Krosnick & Telhami, 1995). Only a handful of studies on issue publics have paid attention to partisan selectivity, i.e., the extent to which people choose congenial over uncongenial political information. Evidence has shown that left-wing issue publics (people who care about a particular issue) do not necessarily choose information that
is line with their partisan predispositions (Iyengar et al., 2008). Furthermore, studies have shown that individuals with important and strong attitudes, those that typically characterize issue publics, select both pro- and counter-attitudinal information (Kim, 2007; Knoblock-Westerwick & Meng, 2009).

However, these studies did not attend to selection of balanced content, which incorporates both pro- as well as counter-attitudinal information about an issue. This lack of attention is important as evidence has shown that people prefer pro-attitudinal over counter-attitudinal information when only these options are available. But, given the alternative to select balanced content, people select it (Feldman et al., 2013; Garret & Stroud, 2014). Furthermore, previous research has not examined whether partisan selectivity among issue publics also depends on the type of evidence used to support a message claim. This is important as evidence from health communication has suggested that the type of evidence may influence message selectivity (Hastall & Knoblock-Westerwick, 2013; Knobloch-Westerwick & Sarge, 2015). In the current study, we draw on motivated reasoning theory to examine both gaps in the literature.

Motivations for Information Selection
Motivated reasoning theory argues that individual motivations influence the cognitive processes people use to arrive at their desired conclusions, where motivation is defined as “any wish, desire, or preference that concerns the outcome of a given reasoning task” (Kunda, 1990, p. 480). According to this theory, two major motivations drive information selection: a defense motivation and an accuracy motivation (Kruglanski & Klar, 1987). People motivated by defensive goals aim to validate and protect their existing attitudes, beliefs, and behaviors. In turn, people driven by an accuracy motivation are likely to process information in an objective and open-minded manner, with the purpose of acquiring an in depth understanding of reality, and of reaching a correct conclusion about an issue (Chaiken, Liberman & Eagly, 1989; Hart et al., 2009; Kunda, 1990).

Previous work on motivated reasoning suggests that individual differences in information selection and processing may be explained by differences in both the type (i.e., defensive, accuracy) and the strength of motivation goals (Nir, 2011; Lodge & Taber, 2000). Extending this rationale to the domain of selectivity, we argue that issue and non-issue publics may differ on the strength of defensive and accuracy goals, which in turn, may lead to different patterns of content selection. Drawing on Lodge and Taber’s (2000) typology of reasoning styles, we expect that content selection among issue publics may be driven by strong defensive and accuracy motivations, whereas selectivity among average citizens may be driven by a weak defensive motivation and a weak accuracy motivation. Below we
outline our expectations of how differences in reasoning style may affect the selection of balanced, pro- or counter-attitudinal content.

**Motivated Selection among Non-Issue公共服务**
Because non-issue publics care less about a particular issue, they may be less interested in defending their opinions or in gaining a deep understanding of that issue. Drawing on Lodge and Taber (2000), we argue that information selection among non-issue publics may be driven by a low motivation to validate their existing viewpoint (defensive motivation), and a low motivation to reach an accurate conclusion about an issue (accuracy motivation). When exposed to political information, non-issue publics may wish to solely choose pro-attitudinal information because it matches their views on an issue, but not necessarily because they want to validate them. Also, as some scholars suggest (e.g., Taber & Lodge, 2006), a natural or “default” state of most people, regardless of the strength of their issue attitudes, issue interest or knowledge, is their preference for like-minded information.

Furthermore, there are reasons to suggest that non-issue publics may be less interested in exposing themselves to counter-attitudinal content. First, because non-issue publics have less issue knowledge, weaker opinions, and care less about a given issue than issue publics (see Converse, 1970; Kim, 2009; Zaller & Feldman, 1992), they may not be interested in learning new information from counter-attitudinal messages. Second, a factor that has been shown to motivate counter-attitudinal exposure is how confident people feel that they can defend their opinions when confronted with information that challenges their beliefs (Albarracín & Mitchell, 2004). Because of the aforementioned characteristics of non-issue publics, they should have lower defensive confidence. For these reasons, non-issue publics may be especially interested in pro-, rather than in counter-attitudinal information.

**Motivated Selection among Issue Publics**
In contrast, information selection among issue publics may be driven by both defensive as well as accuracy goals. On the one hand, people with important and strong attitudes, namely those that typically characterize issue publics, are motivated by defensive goals and – as a result - may select pro-attitudinal content (Holbrook et al., 2005; Lodge & Taber, 2005). Because personally important attitudes are often tied to people’s beliefs that an issue has important consequences for their lives (Johnson & Eagly, 1989; Petty & Cacioppo, 1986), individuals who deeply care about an issue and have strong opinions may choose pro-attitudinal information to further validate their attitudes and seek psychological stability (Hart et al., 2009; Lodge & Taber, 2005; Taber et al., 2009; Westerwick, Kleinman & Knoblock-Westerwick, 2013).
Also, a defensive motivation may drive issue publics to seek counter-attitudinal information with the primary aim of refuting it, and in doing so, reinforce their priors. In fact, evidence outside the issue publics domain suggests that some citizens seek counter-attitudinal arguments for this purpose (see Garret & Stroud, 2014). After all, issue publics are more informed about a given issue, and thus likely have sufficient knowledge to refute counter-attitudinal arguments (Albarracín & Mitchell, 2004; Knoblock-Westerwick & Meng, 2009). Furthermore, some evidence suggests that people experience pleasure when they successfully refute information that challenges their attitudes (Westen, Blagov, Harenski, Hilts & 2006).

On the other hand, however, issue publics seek to become specialists about personally important issues (Converse, 1964). Hence, in addition to defensive motivation and in contrast with the general public, issue publics members also should be motivated by accuracy goals to select counter-attitudinal information. First, people select counter-attitudinal information when it has high information utility, a moderator that has been associated with accuracy motivation (Hart et al., 2009; Knobloch-Westerwick, & Kleinman, 2012; Valentino et al., 2009). Similarly, exposure to diverse perspectives may be useful for issue publics to reach a correct conclusion, and so issue publics should want to gather a wide range of information about a personally important issue, counter-attitudinal information included.

Given that issue publics may be driven by both defensive and accuracy motivations, they may experience tension between reinforcing their opinions and increasing the plausibility that their opinions are correct (Kunda, 1990, Pyszczynski & Greenberg, 1987). This tension may be especially salient when issue publics must choose between pro- or counter-attitudinal content. Balanced content, which offers pro- as well as counter-attitudinal arguments, can resolve this tension and - as such – may best meet both defensive and accuracy motivations. Because balanced content contains pro-attitudinal information, it is useful for issue publics to successfully reinforce their desired conclusions. Also, balanced content may help to pursue an accuracy goal, in that balanced information seeking is most likely when people wish to obtain accurate information and avoid holding incorrect views about an issue (Kastenmuller, Greitemeyer, Jonas, Fischer & Frey, 2010).

All in all, because both defensive and accuracy motivations may guide content selection among issues publics, we predict that.

Compared to non-issue publics, issue publics will select more balanced content than pro- or counter-attitudinal content. (Hypothesis 1).
Evidence for a Message Claim: Numerical versus Narrative

Another largely under-studied factor in research on selectivity is the type of evidence for a message claim, which may matter to selective exposure in general and to content selection among issue publics in particular. The well-established research on message effectiveness, largely coming from persuasive and health communication literature, has paid special attention to messages that advance numerical versus narrative evidence for their claims (e.g., Allen & Preiss, 1997; Hoeken, 2001; de Wit et al., 2008). Does evidence type affect selectivity? This question has not been researched apart from, to our knowledge, two studies from the health communication context. In that context, messages which contained narrative evidence were selected at a greater rate (Hastall & Knoblock-Westerwick, 2013) and resulted in longer exposure (Knobloch-Westerwick & Sarge, 2015) than messages with numerical evidence.

In the context of issue publics in the political domain, however, messages with numerical evidence should be most attractive. Messages that present facts in the form of numbers and statistics are generally seen as more credible (Kopfman, Smith, Ah Yun & Hodges, 1998), verifiable (Lindsey & Yun, 2003), and as better representing the reality (see Brosius & Bathelt, 1994) than narrative messages. For these reasons, numerical messages should be useful for issue publics pursuing defensive and accuracy goals. Issue publics, motivated by a defensive goal, may seek strong verifiable arguments in the form of numbers and statistics to successfully reinforce their prior views. Motivated by an accuracy goal, issue publics should also choose to expand their knowledge by seeking information that contains the credible numerical evidence.

Unlike issue publics, average citizens are not personally invested in reinforcing desired conclusions or in increasing their understanding about an issue. For this reason, they may be less interested in messages with numerical evidence, and instead be attracted to narrative messages, which are more vivid, attention-grabbing and entertaining (Zillmann & Brosius, 2000). All in all, based on these arguments, we expect that:

Compared to non-issue publics, issue publics will choose numerical evidence at higher rates than narrative evidence (Hypothesis 2).

Lastly, inasmuch as issue publics are driven by defensive and accuracy goals, wishing to see balanced political messages that rely on credible and verifiable evidence, it is also possible that issue publics will be especially driven to balanced content with numerical evidence. It is such a combination of diverse perspectives buttressed by numbers and statistics that should best match the motivations among those citizens who care about
and are invested in some political issues. We thus integrate our first two hypotheses to predict an interaction. Specifically, we expect that:

Compared to non-issue publics, issue publics will select more balanced content with numerical evidence (Hypothesis 3).

**Method**

**Design**

To test these hypotheses, we developed an online survey experiment with a 2 (narrative, numerical evidence) x 3 (pro-issue, counter-issue, balanced) x 2 (health care, climate change) within-subjects design. Participants selected multiple articles out of 12 texts about climate change and 12 texts about health care, while we unobtrusively logged their selection behaviors. We selected two issues that are not directly related to one another, and that differ on their perceived importance for the U.S. public: Healthcare is ranked as one of the most important issues for Americans, and climate change, in turn, is considered one of the least important (Gallup, 2014; Pew Research Center, 2014).

**Participants**

A total of 560 U.S. participants were recruited via Amazon Mechanical Turk in August 2014. Because participants with neutral attitudes cannot be classified as selecting pro- or counter-attitudinal content, they were excluded from the analysis (see Feldman et al., 2013). The final sample consisted of 504 participants, among whom 54% were males and 46% females, with an average age of 35.6 years ($SD = 11.20$). Across education attainment, 9% had a high school degree or less, 22% some college but no degree, 11% had an Associate degree, 43% a Bachelor’s degree, 12% a Master’s degree, and 2% had a Doctorate and 1% a professional degree. As such, our final sample is better educated than the general U.S. population, an issue we address in the discussion section.

**Stimulus Material**

Drawing on existing articles and issue-specific websites about climate change and health care, 24 articles were constructed and revised as stimulus material. For each issue, 12 texts were designed, differing only on the manipulated factors. Six texts offered narrative evidence and six texts offered numerical evidence. Within each set of six texts, two texts presented only supporting arguments about the issue (pro-issue texts), two texts presented only opposing arguments (con-issue texts), and two balanced texts included both supporting and opposing arguments (balanced texts). Each text included: A headline
and lead that were either numerical or narrative, plus either pro-, con-issue or balanced, 2) three or four paragraphs with arguments that supported the main idea in the headline and the lead with numerical or narrative evidence and 3) a concluding statement that summarized the arguments.

We developed manipulations that were directly comparable in terms of length and the number of arguments present. Balanced, pro- and con-issue texts contained the same number of arguments and – to manipulate evidence type – each argument was written in both narrative and numerical form. This was to assure that any differences detected are due to the evidence type. Also, the narrative texts used gender-neutral names. In general, the articles varied between 217 and 250 words (See Appendix A for an example of each factor manipulated in the stimulus material).

In July 2014, we pretested the 24 articles on another sample of 711 U.S. participants via Mechanical Turk, to determine that participants perceived the stimulus material as intended (i.e., balanced, pro- or con-issue, numerical versus narrative), and also as equally interesting, understandable, convincing, believable and coherent. Participants were randomly assigned to rate one article. Each participant first rated the headline, and then read and rated the text. In general, the results of the pretest were as expected.

**Procedure**

The 15 minute online study was implemented with Dynamic Process Tracing Environment (DPTE), a program designed to simulate decision making and used in prior studies to observe political heuristics among voters (see Redlawsk, Civettini & Emmerson, 2010). We first measured participants’ attitudes towards climate change, health care and immigration as a filler issue, attitude importance and attitude strength about these three issues, demographics and an attention check question. Participants then proceeded to a practice session that aimed to familiarize them with the simulation of article selection.

After the practice session, participants were presented with 12 headlines about climate change and 12 headlines about health care on separate DPTE screens. The order of the screens was randomized, which means that participants were randomly presented with the climate change headlines first, followed by the health care headlines, or vice versa. On each screen, headlines scrolled down one by one in a random order to prevent that the order in which headlines were presented affected the probability of selection. Each headline was shown three times. Participants were told they had 2 minutes and 45 seconds per issue to select and read as many articles as they chose, by clicking on the headlines in the screen. The allotted time was selected based on previous work on
average readership time, which suggests people spend 102 seconds on average when they access a website via an online search (Mitchell, Jurkowitz, & Olmstead, 2014; see also Pew Research Center, 2015). Hence, the selected time would give all respondents sufficient time to read the material. When a headline was selected, a pop-up window showed the full article. Afterwards, participants closed the window and returned to the previous screen, where they could select additional articles. DPTE logged article selections in an unobtrusive manner.

**Measures**

**Issue attitudes. Health care.** We asked the participants to report, on a scale from 1 (strongly oppose) to 7 (strongly favor), how strongly they opposed or supported the National Health Care Reform Legislation \((M = 4.34, SD = 1.95)\). **Climate change attitudes.** Participants reported how strongly, on a scale from 1 to 7, they agreed or disagreed with the statement that climate change is a serious threat for the United States \((M = 5.21, SD = 1.78)\). They also indicated how strongly they favored or opposed (scale from 1 to 7) a U.S. governmental policy that mitigates climate change by limiting carbon emissions \((M = 5.24, SD = 1.75)\). Because both items were strongly correlated \((r = .80, p < .001)\), they were averaged into a single scale.

In order to measure selective exposure, we trichotomized the original 7-point measures of health care and climate change attitudes into oppose/neutral/favor. Values of 1 through 3 were recoded as oppose, 4 as neutral and 5 through 7 as favor. For climate change, 16.4\% reported opposing attitudes, 10\% neutral attitudes, and 73.6\% favoring attitudes. The percentages for health care attitudes were 33.8\% oppose, 13.4\% neutral and 52.7\% favor.

**Stimulus material exposure.** DPTE automatically recorded information selection behavior when participants clicked on their selected headlines. Article selection was used as the measure of exposure.

**Selective exposure.** We operationalized selective exposure as the selection of a pro-attitudinal article, over a balanced or counter-attitudinal article. We estimated it as the congruence between participants’ issue attitudes and the slant (balanced pro- or con-issue) of the articles they selected. For example, participants favoring (opposing) an issue were counted as selecting pro-attitudinal information when they chose an article favoring (opposing) the issue. In turn, we categorized counter-attitudinal exposure when participants selected an article incongruent with their pre-test issue opinion (when an opponent of the Affordable Care Act selected an article favoring the legislation, for example). Third, we categorized balanced exposure when participants chose a balanced...
issue article, regardless of their initial position. Our final measure of pro-attitudinal exposure is the number of pro-attitudinal articles that each participant selected for each issue. Likewise, counter-attitudinal and balanced exposures are based on the number of counter-attitudinal and balanced articles selected.

**Issue publics.** Although there is no best way of capturing issue publics (see Wojcieszak, 2014 for a review), attitude importance is considered a reliable proxy (Kim, 2009). Accordingly, we operationalized issue publics based on their attitude importance (Kim, 2009; Krosnick, 1990). Also, issue publics are more likely to hold strong attitudes about issues they care about, compared to non-issue publics (e.g., Converse, 1964; Krosnick & Telhami, 1995). Hence, to increase the robustness of our findings, we also operationalized issue publics based on their attitude strength (e.g., Wojcieszak, 2014).

**Attitude importance** was measured for each issue, asking participants to report on a 7-point scale (1 = not important at all, 7 = very important) how important were the issues of climate change ($M = 4.93$, $SD = 1.65$) and health care ($M = 5.69$, $SD = 1.28$) to them personally (e.g., Krosnick, 1988). **Attitude strength** was assessed by asking participants how strong were their opinions about climate change ($M = 5.27$, $SD = 1.53$) and health care ($M = 5.40$, $SD = 1.33$). Values ranged from 1 (not strong at all) through 7 (very strong) (e.g., Krosnick, Boninger, Chuang, Berent & Carnot, 1993).

Attitude importance and attitude strength about climate change were correlated at .72 ($p < .001$), and at .60 ($p < .001$) for health care. Research on selective exposure has either combined attitude strength and importance into a single construct (e.g., Brannon, Tagler & Eagly, 2007) or has treated them as distinct attitudinal dimensions (e.g., Knoblock-Westerwick & Meng, 2009). We followed the latter approach because evidence has shown that attitude strength and importance have different causes and consequences, and therefore should be treated separately (see Visser, Bizer & Krosnick, 2006 for a review). Additionally, our reliance on the separate measures offers some assurance that the findings are not due to some specificities of any one measure used.

**Data Analysis**

To test our hypotheses, we conducted a series of random effects logit models for each issue, wherein we allowed the intercept to vary by participant, as we have multiple observations per participant. In a first model for the entire sample, we estimated to what extent article selection as a binary variable (i.e., non-selection over selection) is predicted by the type of information (i.e., balanced compared to pro-attitudinal and counter-attitudinal information as reference category) and evidence type (i.e., numerical over
narrative evidence as reference category). To directly test our hypotheses, we estimated interaction effects between issue publics (attitude importance and attitude strength), type of information and evidence. Because we did not manipulate issue publics in our experiments, we included gender, age and education as controls in all the models.

**Results**

Participants selected, on average, 5.20 ($SD = 2.15$) articles about climate change out of 12 options, and 5.20 ($SD = 2.15$) health care articles. The results of a first model across the entire sample (Table 1) show that, when selecting information about climate change, all the participants in general were equally likely to select pro-attitudinal compared to counter-attitudinal information ($b = -.04$, ns). Also, they were 73 percent more likely to select articles that featured balanced content over counter-attitudinal content ($b = .99$, $p < .001$).

Additionally, the general sample was more likely to select numerical (probability selection = .55, $b = .18$, $p < .001$), over narrative evidence (probability selection = .45). Furthermore, on average, attitude importance and attitude strength were not significant predictors of whether climate change articles were selected.

The pattern of results was similar for health care. Across the entire sample, participants selected balanced content (probability selection = .75 $b = 1.10$, $p < .001$), over pro-attitudinal (probability selection = .51) and counter-attitudinal (probability selection = .21). As was the case for climate change, participants were only slightly more likely to select numerical evidence (probability selection = .53, $b = .12$, $p < .01$), over narrative evidence (probability selection = .47). Again, neither attitude importance nor attitude strength significantly predicted whether health care articles were selected. All in all, these results indicate that people chose mostly balanced content, over pro-and counter-attitudinal, and numerical over narrative evidence.
Table 1. Repeated Logit Model of Article Selection by Type of Information and Evidence Type

<table>
<thead>
<tr>
<th></th>
<th>Climate Change</th>
<th>Health Care</th>
<th></th>
<th>Climate Change</th>
<th>Health Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N = 502)</td>
<td></td>
<td></td>
<td>(N = 483)</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.36(.15)***</td>
<td>.26</td>
<td>-1.49(.14)***</td>
<td>.23</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.05(.05)</td>
<td>.95</td>
<td>-.04(.05)</td>
<td>.96</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.01(.0)***</td>
<td>.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.07(.02)***</td>
<td>1.07</td>
<td>.07(.02)***</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>Pro-Attitudinal</td>
<td>-.04(.04)</td>
<td>1.04</td>
<td>.22(.05)***</td>
<td>1.24</td>
<td></td>
</tr>
<tr>
<td>Balanced</td>
<td>.99(.05)***</td>
<td>2.70</td>
<td>1.10(.05)***</td>
<td>2.99</td>
<td></td>
</tr>
<tr>
<td>Numerical</td>
<td>.18(.04)***</td>
<td>1.20</td>
<td>.12(.05)***</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>Attitude Importance</td>
<td>-.02(.02)</td>
<td>.98</td>
<td>-.05(.07)</td>
<td>.96</td>
<td></td>
</tr>
<tr>
<td>Attitude Strength</td>
<td>.02(.02)</td>
<td>1.02</td>
<td>-.04(.07)</td>
<td>.96</td>
<td></td>
</tr>
</tbody>
</table>

Note. *** p < .001, ** p < .01, * p < .05. Note: Entries on the left column are unstandardized logistic regression coefficients with the standard errors in parentheses. The odds ratios are shown on the right column. The dependent variable is a dummy variable coded “0” if article about the issue is non-selected, or “1” if article selected. The reference category for type of information is counter-attitudinal content, and the reference category for evidence type is narrative.

Selective Exposure among Issue Publics

Next, we examined the selectivity pattern among issue publics specifically. Motivated by the need to gather divergent and accurate information on personally relevant issues, we expected issue publics (as defined by high attitude importance and high attitude strength) to select more balanced content than pro- or counter-attitudinal content, compared to non-issue publics (namely those with low attitude importance and low attitude strength) (Hypothesis 1).

Contrary to our expectations the selection pattern among issue and non-issue publics was similar. For issue publics, balanced articles about climate change were more appealing than both pro- and counter-attitudinal information. This was the case when issue publics were categorized based on how important (Table 2, probability balanced selection = .74, \( b = 1.06, p < .001 \); probability pro-attitudinal = .52; probability counter-attitudinal = .16) and how strong were their issue attitudes (Table 3, probability balanced selection = .74, \( b = 1.05, p < .001 \); probability pro-attitudinal = .52; probability counter-attitudinal = .19).

This selection pattern was equally pronounced for non-issue publics, who also chose balanced content over pro- as well as counter-attitudinal content. Again, this was the case when selection was predicted by both attitude importance (Table 2, probability balanced...
Similar results emerged for messages about health care. Issue publics selected balanced content over pro- and counter-attitudinal articles, and this choice held for both attitude importance (Table 2, probability balanced selection = .74, $b = 1.06$, $p < .001$; probability pro-attitudinal = .56; probability counter-attitudinal = .17) and attitude strength (Table 3, probability balanced selection = .74, $b = 1.04$, $p < .001$; probability pro-attitudinal = .56; probability counter-attitudinal = .16). However, non-issue publics also selected balanced
content over pro- and counter-attitudinal content, both when non-issue publics were measured by attitude importance (Table 2, probability balanced selection = .77, \(b = 1.16, p < .001\); probability pro-attitudinal = .55; probability counter-attitudinal = .20) and attitude strength (Table 3, probability balanced selection = .76, \(b = 1.14, p < .001\); probability pro-attitudinal = .54; probability counter-attitudinal = .21). All in all, this pattern of results does not support our first hypothesis.

Table 3. Repeated Logit Model of Article Selection by Type of Information and Evidence Type among Issue Publics (Attitude Strength)

<table>
<thead>
<tr>
<th></th>
<th>Climate Change</th>
<th></th>
<th>Health Care</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>((N = 236))</td>
<td>((N = 201))</td>
<td>((N = 267))</td>
<td>((N = 282))</td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.26(.16)**</td>
<td>-1.33(.23)**</td>
<td>-1.49(.18)**</td>
<td>-1.65(.18)**</td>
</tr>
<tr>
<td>Gender</td>
<td>-.07(.07)</td>
<td>-.14(.09)</td>
<td>-.05(.07)</td>
<td>.03(.07)</td>
</tr>
<tr>
<td>Age</td>
<td>-.01(.0)**</td>
<td>.01(.0)</td>
<td>.0(.0)</td>
<td>-.01(.0)*</td>
</tr>
<tr>
<td>Education</td>
<td>.09(.03)**</td>
<td>.03(.04)</td>
<td>.06(.03)*</td>
<td>.09(.03)**</td>
</tr>
<tr>
<td>Pro-Attitudinal</td>
<td>-.03(.06)</td>
<td>.17(.07)*</td>
<td>.10(.06)</td>
<td>.25(.06)**</td>
</tr>
<tr>
<td>Balanced</td>
<td>.93(.08)**</td>
<td>1.14(.09)**</td>
<td>1.05(.07)**</td>
<td>1.04(.07)**</td>
</tr>
<tr>
<td>Numerical</td>
<td>.13(.06)*</td>
<td>.16(.07)*</td>
<td>.24(.06)**</td>
<td>.10(.06)</td>
</tr>
</tbody>
</table>

Note. *** \(p< .001\), ** \(p< .01\), * \(p< .05\). Note: Entries on the left column are unstandardized logistic regression coefficients with the standard errors in parentheses. The odds ratios are shown on the right column. The dependent variable is a dummy variable coded “0” if article about the issue is non-selected, or “1” if article selected. The reference category for type of information is counter-attitudinal content, and the reference category for evidence type is narrative. In this model, attitude strength was divided using a median split.
Issue Publics’ Selection of Evidence Type

Beyond the type of information, we expected that evidence type for the message claim should also matter for content selection. We predicted that, compared to non-issue publics, issue publics would choose political messages presenting numerical evidence over parallel messages with narrative evidence (*Hypothesis 2*).

The results did not support this expectation. Also in this case, both issue and non-issue publics were more driven to numerical evidence than narrative evidence. For climate change, issue publics selected more messages containing numerical evidence than messages with narrative evidence (Table 2, attitude importance: probability numerical selection = .55, $b = .20$, $p < .01$; probability narrative selection = .45; Table 3, attitude strength: probability numerical selection = .56, $b = .24$, $p < .001$; probability narrative selection = .44). However, participants low on attitude importance (Table 2, probability numerical selection = .54, $b = .16$, $p < .01$; probability narrative selection = .46) and attitude strength (Table 3, probability numerical selection = .53, $b = .13$, $p < .01$; probability narrative selection = .47) also chose numerical over narrative evidence.

Contrary to expectations, the appeal of numerical evidence among issue publics actually *diminished* for articles about health care, as there were no differences in the selection of numerical over narrative evidence among those with highly important and strong attitudes. To our surprise, it was the non-issue publics who sought more numerical evidence about health care compared to narrative. Results were consistent across attitude importance (Table 2, probability numerical selection = .56, $b = .25$, $p < .01$; probability narrative selection = .44) and attitude strength (Table 3, probability numerical selection = .54, $b = .16$, $p < .05$; probability narrative selection = .46). These results do not support our second hypothesis.

Selection of Diverse Viewpoints with Numerical Evidence

Next we examined our last theoretical expectation, namely that, compared to non-issue publics, issue publics will select more balanced information, especially when accompanied by numerical evidence (*Hypothesis 3*). We estimated three-way interaction effects between issue publics (attitude importance and attitude strength), type of information (balanced, pro- and counter-attitudinal as reference category) and evidence type (numerical and narrative) and predicted the probabilities of selecting an article about climate change and health care. Results supported hypothesis 3, but only for climate change. We plotted the significant three-way interactions for the ease of interpretation. In Figures 1.a. through d, the bars indicate the probability that a participant would select an article about climate change (please see Tables 4 and 5 in Appendix B for full results for both issues). Climate
change issue publics selected articles featuring balanced content with numerical evidence at higher rates than did non-issue publics.

*Figures 1.a, 1.b.* The impact of balanced content, evidence type and attitude importance on selection of climate change articles. *Notes.* Entries are logistic probabilities of regressing a dummy for article selection on balanced content, evidence type, attitude importance, the two-way interactions between balanced, evidence and attitude importance (balanced x numerical, balanced x importance, numerical x importance) and the three-way interaction between balanced x numerical x importance, controlling for gender, age and education (not shown here). The probabilities of pro- and counter-attitudinal were placed in a single category because we found no differences in the interaction effects for each category separately. *Figures 1.c and 2.d.* show the logistic probabilities replacing attitude importance with attitude strength.

![Graphs A, B, C, D showing the probabilities of article selection by attitude importance and content type.](image-url)
Specifically, among participants with high attitude importance (Figure 1.b), balanced articles with numerical evidence were 5% more likely to be selected, compared to balanced articles with narrative evidence. In turn, among participants with low attitude importance, there was no significant effect of article type and evidence type on the probability of selection. These selection patterns differed significantly between issue publics and non-issue publics, as indicated by the interaction term between balanced content, numerical evidence, and high attitude importance ($b = .31, p < .05$).

Similar findings emerged when we captured issue publics by attitude strength. Among participants with low attitude strength (Figure 1.c), there was no significant effect of article type and evidence type on the probability of selection. In turn, among participants with stronger attitudes (Figure 1.d), balanced articles with numerical evidence were 6% more likely to be selected compared to balanced articles with narrative evidence. Furthermore, these patterns differed significantly between the two groups, as shown by the significant three-way interaction term ($b = .32, p < .05$).

All in all, these results support our third hypothesis, indicating that issue publics select more balanced content that contains numerical evidence, compared to non-issue publics. For health care, the results did not support our expectations, given that the three-way interactions were non-significant.

**Robustness Check**

These results were the same in direction, magnitude and significance when combining attitude strength and importance into a single index. Furthermore, parallel results also emerged when different cut-off points were used to compute the high and low categories of attitude strength and importance. Finally, compared to split models, testing hypotheses 1 and 2 using interaction terms between information type, evidence type, and issue publics lead to the same conclusions.$^{11}$

**Discussion**

In this paper we extended the research on selective exposure by examining three-understudied factors. First, we compared selection of balanced, pro-and counter-attitudinal information between issue and non-issue publics. Second, we compared selection of messages with numerical and narrative evidence. Third, we examined whether issue publics were more likely to select balanced messages with numerical evidence, compared to non-issue publics.
Our first notable finding showed that both issue and non-issue publics selected balanced content about climate change and health care at greater rates than pro- and counter-attitudinal content. This result is in line with some recent evidence suggesting that, when given the option, citizens do select balanced content (Garret & Stroud, 2014; Feldman, et al., 2013; Levendusky, 2013). Thus, both those who care about an issue as well as the general public may be interested in diverse perspectives on socio-political issues.

It is possible that both groups, driven by defensive motivation, sought balanced content to refute counter-attitudinal views and reinforce their desired conclusions (see Garret & Stroud, 2014). In addition, issue publics may have chosen balanced content also to better resist potential persuasion from counter-attitudinal arguments (see Tormala & Petty, 2004), and – driven by strong accuracy goals – to reach correct conclusions about a personally important issue. Ultimately, for somewhat different reasons, both groups of citizens may express interest in political content that features divergent views on an issue. Another explanation, drawing on the hostile media effects literature (e.g., Gunther & Schmitt, 2004) suggests that perhaps issue publics selected balanced content to check whether it was biased toward their point of view. Our pretest data showed that participants rated balanced texts as neutral. However, we did not gather this information specifically for issue publics. Hence, future research should test how issue publics perceive balanced content, and the extent to which their perceptions can influence balanced selection.

Our second notable finding showed that both issue publics and non-issue publics chose numerical evidence over narrative evidence on climate change. Surprisingly, non-issue publics also chose more numerical evidence about health care, whereas this pattern was not observed among issue publics. At this time we cannot offer the reasons for why these issue differences emerged in this case.

The fact that, overall, both groups selected numerical over narrative evidence can be due to the characteristics of the issues studied. Research in health communication has found that people prefer narrative evidence on such issues as weight-loss and stress, issues that are relatively personal (Hastall & Knoblock-Westerwick, 2013; Knobloch-Westerwick & Sarge, 2015). Perhaps it is for such personal issues that narrative messages are preferred. In contrast, climate change is typically perceived as an abstract and distant threat (Leiserowitz (2005), and both climate change and health care reform may be seen as complex sociopolitical issues. As a result, messages with numerical evidence may offer more useful information and be selected at higher rates than narrative evidence. Messages which present quantitative data about populations may be most useful when people seek information about hard issues, such as climate change and health care.
(Carmines & Stimson, 1980, 1986), whereas narrative evidence may be more useful for “easy” or personal issues that people experience more directly. However, it is possible that a preference for numerical or narrative messages regarding hard issues also depends on individual traits, such as numeracy and empathy (see Knoblock-Westerwick et al., 2015). Examining information selection patterns for different issues and among different groups of citizens is an important challenge for future research.

Our third and most important finding showed that individuals for whom climate change was personally important and who held strong attitudes on this issue chose balanced content that contained numerical evidence at higher rates than non-issue publics. However, these findings were not observed in the context of health care. This noteworthy finding points to a crucial distinct selection behavior among issue publics. Although everybody in our study selected messages that were balanced and that contained numerical data, it was especially those who cared about climate change who wanted articles in which diverse perspectives were backed up by numerical evidence. As aforementioned, although both issue publics and the general public may be driven by defensive motivations, issue publics may also be driven by an accuracy motivation. As such, the combination of diverse perspectives and reliable numerical evidence may best fit with the interest of issue publics in becoming specialists about the issues they care about.

Limitations
Our study has some limitations. Most importantly, we argued that the differences between selection patterns among issue and non-issue publics are due to different motivations for content selection. However, we did not measure defensive and accuracy motivation. Future research should closely attend to this issue by measuring participants’ motivations (see e.g., Nienhuis, Mastead & Spears, 2001; Prior, Sood & Khanna, 2013; Taber Cann & Kuksova, 2009) and then testing their selection of balanced, pro- or counter-attitudinal content, in a narrative versus numerical format.

Second, our design did not fully reproduce the selection environment that people have daily at their disposal. However, after concluding the selection task, we asked the participants, on a scale from 1 through 7, how likely they were to select the same information in the media environment. Results showed that for both issues, participants were likely to choose the same information, i.e., balanced over pro- and counter-attitudinal, and numerical over narrative evidence. These findings suggests that our stimuli may to some extent represent the information people encounter in their daily life. Still, to approximate the full context of media choice, future studies can include entertainment choices, among other filler issues (see Arceneaux and Johnson, 2013).
Third, we did not control for how different message features within numerical and narrative evidence may affect selection. For example, research on equivalency framing has suggested that message effects vary depending on whether messages are presented in terms of gains or losses (Kahneman & Tversky, 1984). Within narrative evidence, message features, such as the protagonist, the context, the emotional language, the vividness, among other factors, may generate different effects. It is an important challenge for future research to isolate the various message features that may encourage the selection of certain content.

Lastly, our participants were better educated than the general U.S. population. On the one hand, it is plausible that people who seek information about various sociopolitical issues online are typically better educated (see Prior, 2007). As such, although our sample over represents the highly educated, it may actually accurately represent our population of interest, i.e., those likely to read about healthcare or climate change online. On the other hand, the high levels of education could have affected the results, in that the better educated participants could be drawn to balanced content and numerical evidence, thereby obscuring the differences between issue and non-issue publics. We conducted additional analyses that showed no significant differences between participants with high and low education when it comes to their attitude strength and importance, the selection of balanced, pro- and counter-attitudinal content, as well as the selection of numerical and narrative evidence. These results provide some indication that our findings are not solely due to the educational level of our sample.

Implications

What implications do our findings have for research on selective exposure among issue publics? These initial findings suggest that exposure to divergent viewpoints and to numerical evidence matters for the average citizen. It is, however, the unique group of issue publics, those who care and feel strongly about a given issue, who are especially driven to political information with divergent viewpoints backed up by numerical evidence. Methodologically, our results strengthen the argument that in order to more accurately reflect content selection as it occurs in the real world, future studies should include balanced content in their designs.

Furthermore, although we observed only small effects of evidence type on article selection, our findings suggest that the study of selective exposure should consider not only the match between people’s partisan or ideological predispositions, and the type of slant present in a message. In addition, the type of evidence may matter to individual selection of political information, exacerbating or overcoming selectivity. Lastly, our study
raises interesting theoretical questions about the motivations driving content exposure. We argued that members of issue publics select balanced content and numerical evidence because they wish to reinforce their desired opinions and gather accurate information. Future research should clarify the extent to which these motivations indeed drive the selectivity patterns that we observed in the present study.

Conclusion

The findings of our study should concern citizens and journalists in a democratic system. Selective exposure has been seen as a threat to effective democracy, as it discourages citizens from critically gathering diverse information, and from forming well-informed opinions on public matters (e.g., Iyengar, et al, 2008). Although some citizens primarily tune to like-minded political information, our findings suggest there are audiences who seek diverse viewpoints with reliable evidence. This is relevant for journalists, as these audiences may be attracted to news that meets the core principles of journalism, such as truth, accuracy, fairness and impartiality.
Footnotes

1 According to the issue publics literature (as well as to the vast research on pseudo-attitudes), both issue and non-issue publics have attitudes on a particular issue. The difference between both groups is that non-issue publics are less personally interested in, less knowledgeable about and hold weaker attitudes on that issue than issue publics (see Converse, 1970; Kim, 2009; Zaller & Feldman, 1992).

2 Extensive work has examined the quality of MTurk participants. Compared to other convenience samples, MTurk samples are more demographically diverse, more representative of the general population, and equally or more attentive to experimental tasks (Berinsky et al., 2012; Hauser & Schwarz, 2015; Paolacci et al., 2010). Also, the results of identical studies run on Mechanical Turk and nationally representative samples were substantively the same (Leeper & Mullinix, 2014; Mullinix et al., 2015). Attesting to the credibility of the online panel, research that relies on MTurk participants has been published in psychology (e.g., Casler et al., 2013) and communication science (e.g., Messing & Westwood, 2014).

3 Comparing the sample data with that of the U.S. Census Bureau (2010a), our sample slightly deviates from the general population in terms of gender (males = 49%, females = 51%). The median age of our sample was 35.6 years, whereas that of the U.S. population was 37.2. Third, our sample has a higher educational attainment compared to the general population (U.S Census Bureau, 2010b). Specifically, the U.S. census reported 43% of people with high school or less, 17% some college but no degree, 9% had Associate degree, 20% a Bachelor’s degree, 8% a Master’s degree, and 3% a Doctorate or professional degree.

4 Narrative headlines and texts were rated as significantly more personal compared to numerical headlines and texts (all p < .001). Furthermore, numerical messages were rated more as containing numbers and statistics than narrative messages (all p < .001). Second, pro-issue messages were rated more as having supporting arguments, compared to balanced and counter-issue messages (all p < .001). Similarly, counter-issue messages were perceived more as having opposing arguments, and balanced messages were perceived more as containing both pro- and counter-issue arguments (all p < .001). Third, the texts were perceived similarly understandable, convincing, coherent, interesting and believable (all p > .2). The detailed results for the pretest can be viewed upon request.

5 Participants were asked which are the colors of the American Flag. Response categories included the correct answer and three incorrect answers. The totality of participants answered the question correctly.

6 We included a practice session so participants learned how the selection task functioned on DPTE. In the session of 1 minute and 30 seconds, participants were presented with 12 headlines about immigration as a filler issue. They learned how to select headlines, view content and then return to headline selection again. We followed the recommended and common practice when using DPTE software (see Kleinberg & Lau, 2016), namely that respondents become familiar with the software before using it in the main study.

7 We also tested whether recoding the attitude measures in different ways would affect the results of the hypotheses testing. In the first transformation, we recoded values 1 through 3 of the measure as oppose, 4 as moderate, and values 5 through 7 as support. In the second transformation, we recoded values 1 and 2 as oppose, values 3 through 5 as moderates, and values 6 and 7 as support. In the third data transformation, we recoded the value of 1 as oppose, values 3 through 6 as moderates, and the value of 7 as support. The results of the hypotheses testing did not differ substantially across recoding approaches.
For the two-way interaction evidence type X information type, results showed the coefficients for numerical X pro and numerical X balanced. All other combinations served as reference categories. For the two-way interaction evidence type X attitude importance/strength, results showed the coefficient for numerical X high importance/strength. All other combinations were the reference categories. For the two-interaction information type X attitude importance/strength, results showed the coefficient for pro-attitudinal X high importance/strength and balanced X high importance/strength. All other combinations were the reference categories. Attitude importance and strength variables were divided by using a median split.

Some research has operationalized issue publics according to individual’s demographics (e.g., Iyengar et al., 2008). However, because a demographic operationalization of issue publics may overestimate the size of issue publics membership, others research has considered attitude strength and importance as better estimates of issue publics (Kim, 2009). Still, we added demographics as controls to increase the robustness of our findings.

For the three-way interactions evidence type X information type X attitude importance/strength, results showed the coefficients for narrative X balanced X low importance/strength, narrative X counter-attitudinal X high importance/strength, and numerical X balanced X high importance/strength. All other combinations served as reference categories.

We also tested hypotheses 1 and 2 using interaction variables. The results of hypothesis 1 for climate change and health care showed the interaction effect between balanced selection and attitude importance (Table 1), and the interaction effect between balanced selection and attitude strength (Table 2) were non-significant. Thus, hypothesis 1 was not supported. Regarding hypothesis 2, the interaction between numerical evidence and attitude importance was only significant for health care. Non-issue publics were more likely to select numerical content about health care, compared to issue publics (Table 1). The interaction between numerical evidence and attitude strength was non-significant for both issues (Table 2). Thus, hypothesis 2 was not supported.

The mean likelihood of choosing pro-attitudinal content in the everyday media environment was 4.78 (SD = 1.39) for climate change and 4.92 (SD = 1.29) for health care. The likelihood of balanced selection was 5.08 (SD = 1.49) for climate change and 5.13 (SD = 1.41) for health care, and the likelihood of counter-attitudinal exposure was 3.96 (SD = 1.39) for climate change and 3.94 (SD = 1.42) for health care. Participants reported a higher likelihood of selecting numerical evidence about climate change 3.91 (SD = 1.45) and health care 4.56 (SD = 1.39), compared to narrative evidence about climate change 2.98 (SD = 1.49) and health care. 4.06 (SD = 1.52).