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Candidate Vulnerability and Exposure to Counterattitudinal Information: Evidence From Two U.S. Presidential Elections

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Politically motivated selective exposure has traditionally been understood through the lens of long-standing attitudes and beliefs, but the role of environment in shaping information exposure practices merits further consideration. Citizens might respond to the political environment in their information-seeking behavior for numerous reasons. Citizens who believe their position is politically vulnerable have specific cognitive and affective needs that may make them uniquely attuned to counterattitudinal information. In the context of a presidential election, this means that as the defeat of a supported candidate appears more likely, attention to counterattitudinal content will increase. Data collected in the 2008 and 2012 U.S. Presidential elections support this prediction, although this relationship was observed primarily among supporters of the Republican candidate in both elections.

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Political information-seeking behavior does not take place in a vacuum. Although stable individual characteristics such as partisanship and ideological strength play an important role in dictating political information preferences, short-term factors also have the potential to make certain types of information-seeking behavior more or less likely. One such factor involves the broader political environment within which individuals exist. Citizens perceive shifts in the external environment (e.g., policies change, elections are decided), and these perceptions influence their psychological and emotional states, which in turn shape their engagement with political information. Indeed, multiple studies have shown convincingly that environmental factors have the power to bring about uncertainty (MacKuen, Wolak, Keele, & Marcus, 2010), anxiety (Valentino, Banks, Hutchings, & Davis, 2009), or threat (Magee & Wojdynski, 2012), thereby altering the types of information sources individuals seek out.

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Here, we consider a real-world instantiation of the relationship between environmental factors and political information-seeking behaviors, focusing specifically on perceptions of vulnerability. Citizens feel more vulnerable the more they expect their preferred candidate to lose an election or their preferred position to be rejected in a policy debate. We argue that feelings of vulnerability will elicit psychological reactions with significant implications for how citizens consume political information, ultimately making counterattitudinal information more valuable and attractive. Taken together, this suggests that vulnerability-inducing characteristics of the political environment can promote counterattitudinal exposure. To test this claim, we observe the extent to which assessments of the two major party candidates' electoral chances in the U.S. presidential campaigns of 2008 and 2012 were associated with citizens' willingness to use counterattitudinal sources.

Focusing on the extent to which political information-seeking, especially seeking counterattitudinal sources, is dictated at least in part by citizens' reactions to the broader political environment is important for two key reasons. Relatively few studies ask how citizens' information preferences reflect considerations related to political context. Instead, the literature on politically motivated selective exposure has tended to center on the prevalence of partisan fragmentation (e.g., Bennett & Iyengar, 2008; Nie et al., 2010; Sunstein, 2001, but see Knobloch-Westerwick & Kleinman, 2012; MacKuen, Wolak, Keele, & Marcus, 2010; Valentino et al., 2009). As a result, little attention has been paid to questions of when and under which circumstances partisan selectivity is at its highest (or lowest). Our approach allows for a greater understanding of how external factors might promote or attenuate selectivity.

From a more normative perspective, engagement with counterattitudinal information is a cornerstone of deliberative democracy, playing a critical role in fostering tolerance of opposing views (Delli Carpini, Cook, & Jacobs, 2004; Mendelberg, 2002; Mutz, 2006); as such, understanding the extent to which such engagement is taking place — as well as how certain factors might influence citizens' willingness to consume counterattitudinal sources — is a worthwhile pursuit in itself. In addition, despite a number of recent studies suggesting that contact with counterattitudinal information is not as rare as has been previously suggested (e.g., Bakshy, Messing, & Adamic, 2015; Garrett, Carnahan, & Lynch, 2013; Gentzkow & Shapiro, 2010; Webster & Ksiazek, 2012), little is known about which factors promote greater engagement with counterattitudinal sources.

Using data collected from demographically diverse national surveys during both the 2008 and 2012 U.S. presidential elections, this study investigates how perceptions of vulnerability — operationalized using respondents' subjective assessments of candidates' chances of losing the election — might affect voters' willingness to use counterattitudinal information. Controlling for more stable individual characteristics, we find that citizens exhibit different patterns of information-seeking behavior based on the extent to which their preferred candidate is perceived to be vulnerable to losing the election. This is a relationship largely observed among supporters of the more conservative candidate in each election cycle, offering additional evidence

that selective engagement with the political information environment is a responsive process determined by more than just individual-level partisan congruence.

Responding to the environment

Whereas dissonance theory remains the preeminent explanation of selective exposure, early political communication research suggested that dissonance might not be the most important determinant of information-seeking behaviors. Sears and Freedman (1967; Freedman, 1965; Sears, 1965) were vocal critics, arguing that some situations promote exposure to counterattitudinal sources relative to proattitudinal sources. In the wake of these critiques, scholars began to examine how information-seeking behavior can be influenced by informational needs designed to serve utilitarian purposes (see Hastall, 2009 for a review).

Specifically, Atkin (1973) argued that the need for information emerged from the seeker's desire to reduce uncertainty. In Atkin's approach, uncertainty reduction goals could be evaluative (reducing uncertainty in the formulation of an opinion) or decisional (reducing uncertainty in making the most appropriate decision). In either case, counterattitudinal information might not be avoided — it might even be preferred — by the information consumer if it serves to reduce uncertainty.

Knobloch-Westerwick and colleagues (e.g., Knobloch-Westerwick, 2008; Knobloch-Westerwick & Kleinman, 2012) extended Atkin's (1973) work, focusing specifically on the role of threat in dictating utility. She argued that the influence of utilitarian aims in determining information-seeking behaviors varies according to four threat characteristics: *magnitude* (how great are the costs or benefits of an event occurring), *likelihood* (how likely is the event to occur), *immediacy* (how close the events are to taking place), and *efficacy* (ability of the information seeker to influence the events in question). Her experimental work demonstrated that increases in each of these characteristics can make it more likely that the information seeker will be influenced by utilitarian objectives when seeking information.

Across a number of studies, the utilitarian approach has received significant support. A meta-analysis by Hart et al. (2009) showed that selective exposure is powerfully influenced by utility, especially as it pertains to citizens' willingness to consume counterattitudinal content; their analysis demonstrated that exposure to the other side (an uncongeniality bias, in their review) is at its highest when such information was perceived as valuable for accomplishing a current goal or objective. More recent experimental work has further affirmed this conclusion, having shown that various environmental factors such as expecting to defend one's views (Valentino et al., 2009), entering an uncertain or unfamiliar political context (MacKuen, Wolak, Keele, & Marcus, 2010), or experiencing threatening or anxiety-inducing circumstances (Magee & Wojdynski, 2012) have the potential to make information seekers attribute greater value to — and thus more likely to seek out — counterattitudinal information. In short, information consumption is not solely dictated by assessments of whether a source

is consistent or inconsistent with one's existing views; it is responsive to short-term needs and goals.

This study extends existing literature in two important ways. First, it suggests that the effect of the environment on information-seeking behavior is evident beyond the laboratory. Few studies have examined whether these experimentally observed processes shape citizens' engagement with the political information environment in the real-world. Even among the most well-executed experimental studies, conclusions are based on participants' actions during a constrained information search task, thus limiting our ability to determine whether these processes play out in a similar way in citizens' everyday information-seeking behaviors. This is an important open question given the value of exposure to alternative perspectives in promoting high-quality democratic citizenship (see Mutz, 2006).

Second, in contrast to utility-focused studies that rely on manipulations unrelated to the information-seeking behavior being observed (i.e., utilizing a mortality salience treatment prior to an information search; Magee & Wojdynski, 2012), this study employs a more naturalistic approach by directly observing how citizens' perceptions of the political environment are associated with their political information-seeking behavior. In doing so, this approach yields insight into how the political environment itself might shape information-seeking behavior.

Vulnerability in elections

Presidential campaigns in the United States offer a unique opportunity to examine the relationship between environmental considerations and information-seeking strategies in the real-world. Citizens are uniquely driven by utility considerations in the months and weeks leading up to Election Day. Races for the Presidency in the United States offer the possibility of large-scale changes to the distribution of power and political direction of government (high magnitude) and capture the public's collective attention with their often-dramatic plot twists as the campaign sprints toward its conclusion (high immediacy). Furthermore, the outcome is not decided on some external playing field but is instead dictated by the voice of the electorate (high efficacy). These three characteristics heighten the importance of utility in shaping individual's information-seeking behaviors (Knobloch-Westerwick, 2008).

Importantly, perceptions of the likelihood of a vulnerability-inducing event—Knobloch-Westerwick's (2008) fourth characteristic promoting the influence of utility—exhibit high variability across the citizenry during an election cycle. Presidential campaigns in the United States garner immense media coverage, which includes near-constant speculation and regular disagreement as to which candidate is better positioned to win (e.g., Silver, 2012). Although perceptions of candidate performance are influenced by factors independent of the electoral context (e.g., partisanship), studies have demonstrated that voters are indeed responsive to cues provided during the campaign such as polling data when assessing the likely outcome of an election (e.g., Ansolabehere & Iyengar, 1994). As a result, voters ascribe widely

differing probabilities to their preferred candidate losing an election, which we refer to as *preferred candidate vulnerability*. We argue that these perceptions of the electoral race shape political information-seeking behavior. Specifically, we assert that preferred candidate vulnerability should promote a greater willingness in citizens to use counterattitudinal information sources.

We arrive at this expectation for two distinct reasons. The first involves the value of such information in reducing uncertainty. According to Atkin (1973), reducing uncertainty is a primary objective of information seekers, whether to improve upon decision-making or judgment formation. We extend the logic of uncertainty reduction to account for unfamiliarity, arguing that information seekers might also aim to reduce uncertainty in terms of being able to understand a novel political circumstance better. As addressed above, presidential elections have ramifications for the nature and direction of governance, and campaigns are centered precisely on what each candidate would do once they assume office. For voters who expect their preferred candidate to win the election, cross-cutting information has little value. What motivation is there to learn about an out-party candidate with little chance of winning? However, if the opposed candidate is expected to win the election, counterattitudinal information is far more valuable. It may afford the voter a sense of control, offer insights into the opponent's candidacy (perhaps to critique it in discussions with others), provide a look into what the future administration might look like, etc. The more vulnerable the preferred candidate is to electoral defeat, the more important this type of information may be, and the more likely the citizen will be to seek out counterattitudinal sources.

There is some evidence for this mechanism in experimental research. Knobloch-Westerwick and Kleinman (2012) found that Republicans were more likely than Democrats to seek out counterattitudinal information sources during the 2008 presidential election. The authors attribute this pattern to the political environment and information utility, arguing that messages coming from the party anticipated to win will have more value because they offer greater insight into the incoming governing regime; however, the authors base their conclusion on assumptions about people's understanding of the political environment. That is, they presume that party differences in participants' news selection were driven by a widely anticipated Obama victory; they did not assess participants' perceptions directly. We strongly agree with the logic of Knobloch-Westerwick and Kleinman's interpretation and seek to further validate it here. Our approach offers a complementary test by directly accounting for respondents' subjective perceptions of their preferred candidate's electoral prospects.

A second reason that perceived candidate vulnerability is expected to influence citizens' use of counterattitudinal information is its close association with anxiety, an emotional state known to influence political information searches. Unfavorable political outcomes result in both psychological and physiological responses indicative of heightened states of anxiety. A study conducted in 2008 found that supporters of John McCain, the Republican nominee for president, had higher levels of cortisol — a hormone associated with stress and anxiety — in the days following Democrat Barack

Obama's election than they did in the days preceding Election Day (Stanton, Labar, Saini, Kuhn, & Beehner, 2010). Although that study focused on postoutcome anxiety levels, we suspect that anxiety will increase as an unfavorable election outcome draws near. Almost two thirds of U.S. citizens (62–65%) of even modest partisanship expressed anxiety toward opposed candidates in the American National Election Study between 1980 and 2004 (Ladd & Lenz, 2008). Faced with the prospect that one of these candidates might assume a position of power, we would expect that citizens would see their anxiety increase.

There are numerous reasons to expect anxiety to shape the search for political information. In their influential theory of affective intelligence, Marcus and MacKuen (1993) argued that anxiety promotes surveillance in citizens' engagement with the political environment, making them more active, open-minded information seekers in the process. Furthermore, Valentino et al. (2009) found that anxiety facilitates a greater willingness to use counterattitudinal sources, attributing this relationship to the idea that exposure to the other side might serve as a mechanism to deal with the state of anxiety. Perhaps, simpler than either of these explanations is that individuals who are faced with the prospect of a president who causes them a great deal of anxiety might be particularly motivated to advocate against his election, thereby using counterattitudinal information as a sort of opposition research. Regardless of which of these mechanisms is in play, the expectation is the same: Higher levels of anxiety should promote the use of counterattitudinal information sources.

> H: The more vulnerable to electoral defeat citizens perceive their preferred candidate to be, the more likely they are to seek out counterattitudinal information.

Methods

We test this prediction using a pair of large surveys: the 2008 National Annenberg Election Survey (NAES) from the Annenberg Public Policy Center and an original election year panel study in 2012 conducted by GfK (detailed sample statistics for both surveys are available online in Appendix A of the Supporting Information File). These two data sources allow for an investigation of counterattitudinal information use in two very different electoral contexts, helping to establish the generalizability of our findings. Furthermore, these studies use markedly different approaches to measuring political media exposure (described below). Although these measurement differences make direct comparison across elections difficult, evidence of a consistent relationship across election cycles despite differing operationalizations should inspire confidence that the observed association reflects variation in the underlying concept, counterattitudinal exposure, and not a specific measurement strategy.

In its telephone version, the NAES utilized a rolling cross-sectional survey that was in the field from December 2007 until Election Day 2008. However, given the ever-evolving nature of the questionnaire, data availability limited our analyses to focus on respondents who identified as either conservative or liberal and completed the survey during the general election campaign time period from June until the end

of August 2008 ($N = 3{,}078$). This time period remains of particular interest in that it marked the conclusion of the Democratic nominating process and the emergence of the two major-party candidates into national awareness. In terms of demographics, the 2008 NAES sample during this time period achieved diversity across a range of variables such as age (median age = 54), gender (57.4% female), education (94.4% high school graduates; 41.2% bachelor's degree or higher), and race (85.6% white or white Hispanic, 7.8% black). When compared to census data via the 2008 American Community Survey (ACS), the sample appears older (2008 ACS data indicate that 11.1% of the population is aged 55–64, whereas 23.3% of the NAES sample were in this age group), more educated (2008 ACS: 85.0% high school graduate or higher), and over-represents both females (2008 ACS: 51.3.7% females) and whites (2008 ACS: 75.0% white).[1]

The NAES did not administer an election-year survey in 2012, but the 2012 GfK Knowledge Panel survey is an appropriate complementary test given the similar sample construction to the 2008 NAES. The 2012 GfK survey sampled U.S. adults drawn from a panel of respondents designed to be representative of the U.S. population. They were recruited through random-digit dial and address-based sampling frames. Panelists were invited via e-mail to participate in the study, and data were collected at a similar point in the campaign cycle as in the 2008 NAES (July/August). Consistent with the NAES data, analyses were restricted to respondents who identified as either conservative or liberal ($n = 531$). The 2012 sample was also very diverse, but with similar differences from the general population as the 2008 NAES: somewhat older (25.6% of the 2012 panel sample was aged 55–64 vs. 12.3% in the 2012 ACS), more educated (92.4% high school graduate or above; 86.4% in the 2012 ACS), and predominantly white (78.2% white; 73.9% white in the 2012 ACS). Thus, even though the differences between each of these samples and the general population should not be ignored, their comparability offers additional confidence in their appropriateness as comparison groups across both election cycles.

Outcome variable: Counterattitudinal news use

Both the 2008 NAES and 2012 GfK surveys included several questions about respondents' political information-seeking behavior in the months prior to Election Day. Although various measures of news use were included across multiple formats (e.g., television news, newspapers, political talk radio, etc.), the outcome variables for this study were created from items on Internet news use in light of several recent publications on selective exposure that claim selectivity to be at its highest online (e.g., Iyengar & Hahn, 2009; Nie, Miller, Golde, Butler, & Winneg, 2010). Furthermore, the number of individuals who use the Internet for news has risen dramatically over the past several years. According to the Pew Research Center for the People and the Press (2012), nearly half of all citizens in the United States (47%) reported using the Internet as a main campaign news source, up from 21% in 2004. The combination of widespread use along with the ability of Internet users to dictate with greater control

the type of news they receive makes online news arguably the most interesting medium to observe when investigating source preferences.

In the 2008 NAES, a measure of counterattitudinal site use was created based on respondents' answers to two separate questions asking them to identify each of the political news sites they could recall using in the previous week (complete wording of all items used in this study is available in Appendix B of the Supporting Information File). Responses to these items were recorded verbatim; when possible, these open-ended responses were coded according to classification procedures employed by other scholars in prior selective exposure studies (see Adamic & Glance, 2005; Gentzkow & Shapiro, 2010; Hargittai, Gallo, & Kane, 2008; Lawrence, Sides, & Farrell, 2010; Stroud, 2008).[2]

If the online source had not previously been classified as liberal, conservative, or neutral, two coders reviewed the site for explicit indications of an ideological slant and coded the source appropriately. Coders checked the "about us" sections to see whether the website explicitly described their partisan or ideological label. Some websites, like ESPN.com, are clearly nonpolitical. These were coded as "other" and were excluded from all analyses. While the coding technique employed led to obvious conclusions regarding the ideological tenor of most sources, others required a more nuanced approach. For example, references to the NPR webpage were coded primarily as neutral unless more specific references were made to programs or personalities that has been identified by previous scholars as liberal, such as *The Diane Rehm Show* (a more extensive list of examples is provided in Appendix C of the Supporting Information File). Intercoder reliability was acceptable: Estimates of Krippendorf's Alpha on the 1284 cases yielded a reliability estimate of .852 (see Hayes & Krippendorff, 2007).

After coding the sources, a measure of counterattitudinal site use was created by matching individuals' self-identified ideological placement (liberal or conservative) with the number of sources that represented the opposite ideological perspective. For example, a conservative who visited the *Daily Kos* (a liberal blog) to view information about the 2008 campaign was given a "1" for counterattitudinal site use. Since the majority of respondents who used counterattitudinal sites only named one of these sites, a dummy variable was constructed to measure counterattitudinal site use.[3]

The 2012 GfK survey took a complementary approach toward measuring respondents' online news-seeking habits during the 2012 campaign. Although still focusing on the sources used to obtain information about the campaign, questions on the 2012 survey asked respondents how frequently they visited various categories of news sources on a 5-point scale (ranging from "*never*" to "*every day or almost every day*"). The survey included questions about their use of both mainstream and alternative online-only (e.g., blogs) news sources, representing three different ideological perspectives (conservative, liberal, or neutral). In each case, examples were provided to respondents so that they would be able to identify more easily the type of source that the question was designed to measure. As with the 2008 NAES, responses to these items were merged with respondents' self-reported ideological leanings, creating an

indicator of counterattitudinal site use by observing respondents' frequency in using sources inconsistent with their ideological predispositions. Similar to the 2008 NAES, this item was dichotomized due to the observation that a large number of respondents reported never using counterattitudinal news sites across any of the waves of data collection.

Predictor variable: Preferred candidate vulnerability

To assess the relationship between preferred candidate vulnerability and use of counterattitudinal information, we used a series of items in both the 2008 NAES and 2012 GfK studies that asked respondents to provide the candidate for whom they intended to vote in the presidential race. They were also asked to indicate their perceived probability that each of the two major-party candidates would win the election on a scale from 0 to 100. To create the preferred candidate vulnerability scale, we subtracted the perceived probability for the respondent's preferred candidate—as indicated by the vote intention measure—from 100. The result is a measure that taps into how likely respondents perceived their preferred candidate to lose the election, also ranging from 0 to 100. Thus, if respondents perceived their preferred candidate to have a 65% chance of winning the election, their value on the vulnerability scale would be 35 (2008: $M = 33.61$, $SD = 19.11$; 2012: $M = 32.17$, $SD = 16.89$). Not surprisingly, supporters of John McCain, the Republican nominee for U.S. President in 2008, felt that their candidate was more vulnerable to electoral defeat than supporters of the eventual winner, Democratic nominee Barack Obama (McCain supporters: $M = 39.05$, $SD = 18.84$; Obama supporters: $M = 28.27$, $SD = 20.12$). The 2012 U.S. presidential election was characterized by similar, though substantively smaller differences, as supporters of Republican nominee Mitt Romney felt that he was more vulnerable than supporters of Obama, who ultimately won re-election (Romney supporters: $M = 35.30$, $SD = 16.46$; Obama supporters: $M = 30.29$, $SD = 16.94$).

Control variables

Several other individual-level factors—some that have been firmly established in earlier empirical work and others that have long been considered important to understanding the preference toward proattitudinal information—must also be accounted for within our models. Despite varied explanations as to why, *proattitudinal site use* has been shown to highly correlated with counterattitudinal site use (e.g., Chaffee, Saphir, Graf, Sandvig, & Hahn, 2001; Garrett et al., 2013; Gentzkow & Shapiro, 2010) and is controlled by including a measure of proattitudinal site use by following the same procedures used to create measures of counterattitudinal exposure described above (2008: $M = 0.34$, $SD = 0.63$; 2012: $M = 1.84$, $SD = 1.05$).[4]

Candidate preference was controlled for through use of a dummy variable indicating *support for Obama* in both presidential races (0 indicating support for McCain/Romney, 1 indicating support for Obama), allowing us to account for whether supporters of one candidate or the other were more likely to use counterattitudinal sources (2008: $M = 0.51$, $SD = 0.50$; 2012: $M = 0.53$, $SD = 0.50$).

Ideological strength, thought to have a negative relationship with use of counterattitudinal sources studies (see Brannon, Tagler, & Eagly, 2007; Frey, 1986; Knobloch-Westerwick & Meng, 2009; Stroud, 2008), was controlled for with the use of a dichotomous measure indicating strong or weak ideological attachment (2008: $M = 0.34$, $SD = 0.48$; 2012: $M = 0.16$, $SD = 0.37$). Furthermore, higher levels of political sophistication have long been thought to facilitate a willingness to engage with opposing viewpoints for a variety of reasons, such as the ability of political sophisticates to defend their positions in light of alternative perspectives (Albarracin & Mitchell, 2004; Festinger, 1964) or an understanding common among the politically sophisticated of the value of political tolerance and "good citizenship" (Chaffee et al., 2001; Kinder, 1998). As a result, items that tap into this general concept of political sophistication—*political knowledge* (2008: $M = 2.94$, $SD = 1.08$; 2012: $M = 2.64$, $SD = 1.29$), *education* (2008: $M = 6.43$, $SD = 2.06$; 2012: $M = 10.68$, $SD = 1.97$), and *political interest* (2008: $M = 3.43$, $SD = 0.70$; 2012: $M = 3.04$, $SD = 0.83$)—should have a positive association with use of counterattitudinal information.

Results

Before proceeding to the influence of candidate vulnerability on exposure to counterattitudinal information, we briefly review the character of individuals' online political information consumption habits. Not surprisingly, online political information-seekers, including ideologues, still rely heavily on sources that are nonideological. Around 57% of political conservatives in the United States and 47% of political liberals reported using at least one neutral news source in the past week in 2008. Using a different measurement strategy in 2012, around 43% of political conservatives and 51% of political liberals reported using neutral sources with varying degrees of regularity.

Shifting to ideologically slanted news sources, the data suggest that citizens are also making considerable use of proattitudinal news sources: 25% of conservatives and liberals reported using proattitudinal sources in 2008, whereas 47% reported using at least one proattitudinal source regularly in 2012. However, we would note that many respondents also reported using counterattitudinal sources, with 11% using at least one counterattitudinal source in the past week in 2008 ($SD = 0.31$) and 31% reporting use of such source with varying regularity in 2012 ($SD = 0.46$).

Although dissimilarities in the measurement approaches used in 2008 and 2012 do not allow for direct comparisons regarding over-time shifts in political information-seeking habits, these observations suggest at minimum that counterattitudinal sources continued to be used among a nontrivial segment of the population despite ample opportunity to do otherwise—offering further justification for this effort to better understand why and under what circumstances individuals consume counterattitudinal content.

Our theoretical expectation that use of counterattitudinal news sources is predicted by preferred candidate vulnerability was tested through a series of logistic

Table 1 Determinants of Use of Online Counterattitudinal News Sources, 2008 NAES[a]

	Model 1		Model 2 (w/Interaction)	
	B	*Exp* (*B*)	*B*	*Exp* (*B*)
Preferred candidate vulnerability (PCV)	.003(.00)	1.003	.011*(.01)	1.011
Obama supporter	−1.066**(.17)	0.344	−.350(.34)	0.705
PCV x Obama supporter	—	—	−.022*(.01)	0.978
Proattitudinal site use	.216*(.11)	1.241	.208*(.11)	1.231
Ideological strength[b]	−.587**(.17)	0.556	−.577**(.17)	0.562
Political knowledge	.020(.08)	1.020	.018(.08)	1.018
Education	.064(.04)	1.066	.068#(.04)	1.070
Political interest	.221#(.12)	1.248	.209#(.12)	1.232
Constant	−3.971**(.51)	0.019	−3.229**(.53)	0.040
N	1,976		1,976	
−2 Log Likelihood	1286.560		1280.479	

Note: Logistic regression. Cell contents are coefficient (SE).

[a]Two alternative models were estimated, one including the PCV variable as an independent and the other including the PCV, Obama supporter, and interaction variables. When the sole variable in the model, the coefficient for PCV was positive. The coefficients for PCV and the interaction term achieved significance in the second model, with coefficient directions consistent with the more constrained model.

[b]Weak ideologue is reference category.

$^{**}p < .01$; $^{*}p < .05$; $^{\#}p < .10$.

regression models presented in Table 1 for 2008 and Table 2 for 2012. Before examining the influence of preferred candidate vulnerability—our central theoretical concern—we briefly consider two control variables that influence respondents' use of counterattitudinal news sites across both data sets. Consistent with prior work (e.g., Garrett et al., 2013), proattitudinal site use was strongly and positively associated with counterattitudinal site use. Odds ratios indicate that each additional proattitudinal source that respondents reported using corresponds with a 24% increase in the odds of using a counterattitudinal source in 2008 (Table 1, Model 1).

In 2012 (Table 2, Model 1), each unit increase in the frequency of proattitudinal source use was associated with an astounding 264% increase in the odds of using a counterattitudinal source. Further, and perhaps not surprisingly, ideological strength also had a significant effect in both election cycles. Respondents who identified as strong ideologues (relative to weak ideologues) showed a 44% decrease in their odds of using counterattitudinal sources in 2008 and a 51% decrease in their odds of using counterattitudinal sources in 2012.

We turn now to our prediction that higher perceived vulnerability of one's preferred candidate should foster a greater willingness to use counterattitudinal information. A positive and significant coefficient for preferred candidate vulnerability would be consistent with the prediction. Across the two studies, however, support,

Table 2 Determinants of Use of Online Counterattitudinal News Sources, 2012 GfK[a]

	Model 1		Model 2 (w/Interaction)	
	B	*Exp* (*B*)	*B*	*Exp* (*B*)
Preferred candidate vulnerability (PCV)	.016*(.01)	1.016	.032**(.01)	1.033
Obama supporter	−.407#(.23)	0.666	.683(.52)	1.980
PCV × Obama supporter	—	—	−.032*(.01)	0.969
Proattitudinal site use	1.292**(.14)	3.640	1.314**(.14)	3.721
Ideological strength[b]	−.724*(.33)	0.485	−.779*(.33)	0.459
Political knowledge	−.057(.11)	0.945	−.056(.11)	0.946
Education	.079(.07)	1.082	.076(.068)	1.079
Political interest	.020(.18)	1.020	.034(.18)	1.035
Constant	−4.341**(.81)	0.013	−4.963**(.86)	0.007
N	531		531	
−2 Log Likelihood	492.049		486.576	

Note: Logistic regression. Cell contents are coefficient (SE).

[a]Two alternative models were estimated, one including the PCV variable as the sole independent variable and the other including the PCV, Obama supporter, and interaction variables. When the sole predictor, the coefficient for PCV was positive and coefficient. The coefficient for PCV achieved significance in the second model; however, the interaction term—while in the anticipated direction—fell short of significance ($p = .16$).

[b]Weak ideologue is reference category.

$^{**}p < .01$; $^{*}p < .05$; $^{\#}p < .10$.

was mixed. Looking first at 2008 (Table 1, Model 1), the coefficient for preferred candidate vulnerability was positive but failed to achieve significance; vulnerability, at least in the aggregate, did not consistently predict citizens' use of counterattitudinal information in 2008.

However, the results from 2012 (Table 2, Model 1) tell a different story. Consistent with our prediction, perceived candidate vulnerability had a significant, positive association with use of counterattitudinal news sources. A 1-point increase in preferred candidate vulnerability (measured on a 101-point scale) was associated with a change in log odds of 0.016, $p < .01$. Equivalently, the exponentiated coefficient indicated that the odds of reading counterattitudinal sources increases by about 1.6% for each 1-unit increase in preferred candidate vulnerability.

Predicted probabilities provided another illustration of the magnitude of this effect. Romney supporters at average levels of vulnerability ($M = 32.17$) were estimated to have a 19% probability of using counterattitudinal information sources, whereas Obama supporters were estimated to have a 14% probability of using such sources at the same level of vulnerability. When predicted probabilities were estimated using values on the vulnerability scale at 1 *SD* above the mean ($M + 1SD = 49.06$), these likelihoods increased to 24 for Romney supporters and 17% for Obama supporters, respectively. Thus, at least in 2012, higher perceived candidate vulnerability

increased the willingness of citizens to engage with information sources representing the other side.

The inconsistency of results in 2008 and 2012 merits further scrutiny. Why was the expected relationship only significant in the more recent election? One possible explanation is that individuals supporting the Democratic ticket and those supporting the Republican ticket may have responded differently to candidate vulnerability, and that these differences may have diluted the aggregate effect. Partisan differences in selective exposure have been documented before (e.g., Garrett & Stroud, 2014; Iyengar, Hahn, Krosnick, & Walker, 2008; Knobloch-Westerwick & Kleinman, 2012). Furthermore, there is a growing body of evidence suggesting that conservatives and liberals, at least in the United States, differ on key psychological characteristics. Importantly, conservatives tend to exhibit a higher need to manage uncertainty and threat — both of which might be associated with vulnerability — than liberals (Jost & Amodio, 2012). We consider the possibility that partisans — or in this case, supporters of each of the two major-party candidates in the United States — might have responded differently to perceived candidate vulnerability when seeking political information.

Descriptive data provided preliminary evidence of these partisan differences, suggesting that the association between perceived candidate vulnerability and use of counterattitudinal sources was stronger for McCain and Romney supporters than for Obama supporters. For example, respondents who expected their candidate to win in 2012 (having a perceived vulnerability of 20 or below) exhibited only modest use of counterattitudinal information, regardless of which candidate they supported: About 23% of both Romney ($n = 65$) and Obama ($n = 76$) supporters did so. When respondents perceived the election to be a toss-up (perceived vulnerability ranging from 40 to 60), however, there were substantial differences between Romney and Obama supporters. Only 29% of Obama supporters ($n = 65$) reported using counterattitudinal sources, while over 40% of Romney supporters ($n = 92$) did so. This is consistent with the idea that supporters of McCain and Romney were responding to vulnerability differently than Obama supporters in their information-seeking behavior, and these differences were most apparent when perceived vulnerability is high.

Regression models provide a more rigorous test of this moderating relationship. Introducing an interaction term between perceived candidate vulnerability and the Obama supporter dummy variable to the model described above allows us to determine whether the association between vulnerability and counterattitudinal news use differed depending on which candidate respondents supported. The results are presented in Model 2 in both Table 1 (2008) and Table 2 (2012).

Looking first at 2008 — where we previously saw no effect for vulnerability — a different story emerges when McCain and Obama supporters are considered separately. Upon introducing an interaction term, the coefficient for preferred candidate vulnerability, which now represents the conditional association between vulnerability and counterattitudinal news use for McCain supporters exclusively, was positive and significant. In other words, as perceived vulnerability increased, McCain supporters were more likely to have used counterattitudinal sources. A 1-point increase in preferred

candidate vulnerability for McCain supporters was associated with a change in log odds of approximately .011; the exponentiated coefficient indicates that this is equivalent to a 1% increase in the odds of a McCain supporter reading a counterattitudinal source.

The interaction term also achieved significance, although *in a negative direction*. This means that Obama supporters were modestly *less* likely to use counterattitudinal sources as the prospect of an electoral defeat for their preferred candidate grew. A 1-point increase in preferred candidate vulnerability for Obama supporters was associated with a $(-.022 + .011) = -.011$ change in log odds. The combination of a positive effect among McCain supporters and negative effect among Obama supporters also explains the absence of any significant coefficient for perceived candidate vulnerability in the aggregate model (Table 1, Model 1) as these contrasting effects in essence canceled each other, masking the quite different reactions that each candidate's supporters had in response to perceived candidate vulnerability.

In 2012, the story is similar with one important caveat. Although the conditional effect of perceived candidate vulnerability was positive and significant for Romney supporters, $B = .032$, $p < .001$, the interaction term showed that vulnerability had little influence on Obama supporters: A 1-unit increase was associated with a change in log odds of $(-.032 + .032) = 0$. Referring once again to the exponentiated coefficients, a 1-unit increase in preferred candidate vulnerability for Romney supporters was associated with an increase in the odds of their using a counterattitudinal source of about 3.3%.

To illustrate these interactions further, Figure 1 translates these effects into predicted probabilities of the likelihood of using counterattitudinal sources across the entire range of values on the preferred candidate vulnerability scale. The plot on the left presents the results from 2008, showing the positive association between perceived candidate vulnerability on use of counterattitudinal information among McCain supporters. This was a stark contrast to the small, negative relationship observed among Obama supporters — the line trended in a downward direction, suggesting that use of counterattitudinal sources decreased as perceptions of vulnerability increased. The two groups are not entirely different, however. Regardless of who they supported, respondents who perceived their preferred candidate to have little chance of losing the election had very similar likelihoods of using counterattitudinal sources. The differences emerge as values on the vulnerability scale increase; in fact, the difference between McCain supporters and Obama supporters only attained statistical significance at high levels of perceived candidate vulnerability (values greater than 80).

The picture painted by 2012 is even more telling. Whereas Obama supporters were nearly indistinguishable in their predicted likelihood of using counterattitudinal information across the entire range of values on the vulnerability scale, Romney supporters showed a dramatic increase in their likelihood of encountering the other side as vulnerability increased. In fact, Romney supporters who considered Romney to be highly vulnerable ($M + 1SD = 49.06$) were nearly twice as likely to report using counterattitudinal sources than those who considered Romney to be far less

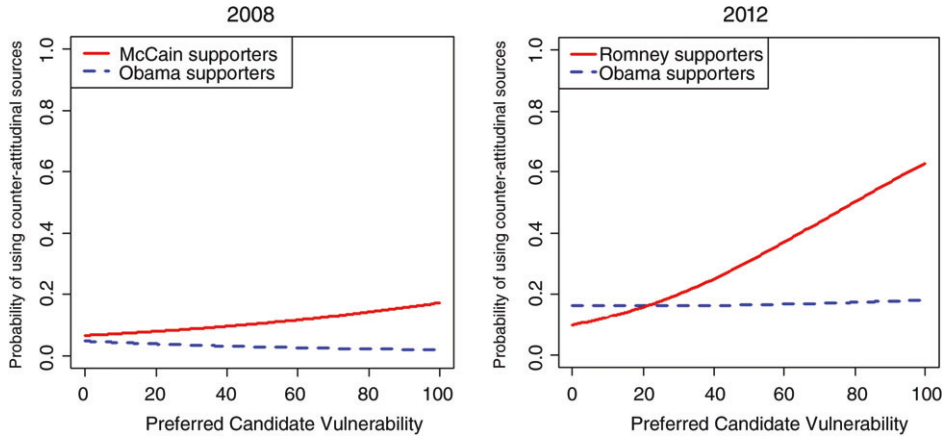

Figure 1 Perceived candidate vulnerability and likelihood of using counterattitudinal sources, by candidate support (2008 and 2012). All other variables held at their mean.

vulnerable (M – 1SD = 15.18). Similar to 2008, the differences between Romney supporters and Obama supporters became more pronounced at higher values on the candidate vulnerability scale; statistically, Romney and Obama supporters were only distinguishable when vulnerability was greater than around 57 on the 101-point scale.

Discussion

This study enhanced our understanding of political information seeking by considering how citizens may be responding to environmental considerations when seeking out political information. Using data from both the 2008 and 2012 U.S. presidential elections, we found consistent evidence that some voters were responsive to their perceptions of the campaign, specifically in how vulnerable they perceived their preferred candidate to have been in the race for the White House. This relationship was observed, however, only among those who supported the Republican candidates in both elections. These citizens were more likely to use counterattitudinal information sources the more vulnerable they perceive their preferred candidate to be on Election Day. Other studies have suggested that the perceived status of the candidates may be driving political information-seeking behavior (e.g., Knobloch-Westerwick & Kleinman, 2012), but this study offers uniquely powerful evidence of the role of perceptions, demonstrating the effects across two elections and relying on a direct measure of perceived vulnerability.

The absence of an effect among Obama supporters raises the important question of why supporters of the Republican candidates were uniquely responsive to their candidates' electoral vulnerability in 2008 and 2012. Given the close association between vulnerability and anxiety—and as a consequence a clear set of expectations of what such a state should mean for political information-seeking behavior—this cross-partisan difference is somewhat surprising.

We cannot answer this question definitively with these data, but there are some plausible explanations. Perhaps the difference can be attributed to the fact that supporters of McCain and Romney tended to express higher levels of perceived vulnerability for their preferred candidates, consistent with the polling data at the time. This would suggest that the potential influence of perceived candidate vulnerability relies on some threshold being crossed, such that vulnerability only promotes exposure to counterattitudinal sources once the level of concern that one feels about their preferred candidate's electoral chances exceeds a certain point. However, descriptive data (as discussed above) suggested that likelihood of using counterattitudinal sources increased gradually in response to perceived candidate vulnerability; there was no evidence of a threshold effect. Nevertheless, this possibility may merit more rigorous testing in future studies.

More likely, in our view, is the possibility that liberal and conservative voters experience vulnerability differently. Researchers have begun to examine how citizens who subscribe to differing political ideologies vary along dimensions such as neurological characteristics (Amodio, Jost, Master, & Yee, 2007), personality traits (Carney, Jost, Gosling, & Potter, 2008), and processing styles (Jost & Amodio, 2012). These differences suggest the possibility that those on opposing ends of the ideology continuum might respond differently to an anticipated loss for their preferred candidate, including differences in their information-seeking behavior.

Another related avenue of exploration involves investigating the interplay of ideology and affect. Leading proponents of affective intelligence have begun to investigate potential connections between emotional reactions and personality traits (MacKuen, Marcus, Neuman, & Miller, 2010). Perhaps liberal voters retreat to more familiar, reassuring sources when perceiving their candidate to be vulnerable, whereas conservative voters become more surveillance oriented in their approach to political information. There is some precedent for observing partisan differences in information-seeking strategies (e.g., see Garrett & Stroud, 2014), though less work has investigated how partisans might respond differently in their searches for information when vulnerable, anxious, or threatened. Thus, more research must be done to yield the mechanism behind these partisan differences in responding to vulnerability.

Despite the unexpected partisan group differences, the results of this study provided compelling evidence that information exposure decisions are shaped by the political environment. This has implications for selective exposure to political information, *and* for the consequences of that exposure. We have shown that facing an unfavorable election outcome can make counterattitudinal information more appealing, and we argue that such exposure is useful for managing anxiety and reducing uncertainty. This is not to say, however, that individuals are pursuing the deliberative ideal: Being politically informed and making the best possible decision is not necessarily their goal. In the quest to manage anxiety, counterattitudinal information may instead be sought as a form of opposition research, intended to help the individual steadfastly defend his or her beliefs, either internally (e.g., the disconfirmation bias; Taber & Lodge, 2006) or in conversations with others. If this is the case, the ultimate

consequence of counterattitudinal exposures might be less favorable than previously thought.

These findings set the stage for more research that investigates environmental factors fostering counterattitudinal exposure. Further, scholars should consider whether cross-cutting information-seeking behavior, when occurring as a response to certain environmental factors, influences the consequences of this seemingly desirable behavior. Revealing the varied processes that underlie exposure to counterattitudinal information could have important implications for what effects these practices have on attitudes, tolerance, and political knowledge. A willingness to seek out the other side is an important first step, but a more deliberative citizenry requires that this information is used appropriately.

Another important open question concerns whether the relationships observed here are unique to the United States. There is considerable evidence that selective exposure operates in other countries (e.g., Hart et al., 2009; Kobayashi & Ikeda, 2009), but whether factors related to the political environment will exert comparable influence across countries is less clear. We suspect that differences in media systems and political systems will prove influential. For example, research on political disagreement has suggested that the United States's two-party system shapes the influence of encounters with other viewpoints (Smith, 2015). Understanding the extent to which these effects transcend political boundaries would be valuable.

Some limitations to this study deserve mention. Perhaps most notably, the survey approach, while enhancing generalizability, limits our ability to explicitly test the underlying psychological mechanisms posited here. Importantly, this means that we cannot be certain about the direction of causality. Perhaps, exposure to counterattitudinal information induces shifts in preferred candidate vulnerability. Theoretically, counterattitudinal news exposure could lead voters to question their confidence in a preferred candidate. Ideologically, slanted news outlets have shown a propensity to report on polls favoring the outlet's preferred candidates (Groeling, 2008), which could shape the way in which individuals perceive their preferred candidates' electoral chances. Further, there is evidence that coverage of electoral contests differs substantively across outlets, which could shape consumers' perceptions of the race. Thus, for example, conservatives who consume liberal sources might come away with the impression that the liberal candidate was faring better.

However, research investigating the effects of counterattitudinal information exposure suggests that people employ psychological measures—consciously or not—to preserve existing worldviews. The hostile media phenomenon suggests that ideologues are likely to perceive media coverage that is unfavorable to their preferred positions as biased regardless of reality (e.g., Vallone, Ross, & Lepper, 1985). Relatedly, Taber and Lodge (2006) found evidence that news consumers' exhibit disconfirmation bias, actively counter-arguing information that challenges their existing views. Thus, consumers who encounter polling data favoring an opposing candidate or unsettling representations of the election in general on a counterattitudinal site are unlikely to be fully swayed, and some may even have their expectations of success

reinforced. Perhaps more importantly, prior experimental results focused on a similar question—such as those from Knobloch-Westerwick and Kleinman (2012)—have yielded evidence consistent with our proposed explanation.

Although we believe the arguments for the claims here are compelling, explicitly testing direction of the relationship between vulnerability and counterattitudinal remains an important next step. Experimental designs that allow for control over temporal order seem particularly well-suited for this task. For example, future studies could manipulate vulnerability by exposing participants to stimuli that elicit varied perceptions of vulnerability about a preferred candidate's (or political party's) electoral prospects, such as unfavorable polling numbers. These studies could then observe information-seeking behavior by allowing participants to seek out additional information about the campaign. What these studies might lack in external validity, they would more than make up for in offering further clarity in the nature of the relationship between vulnerability and use of counterattitudinal news sources.

This study is not immune from concerns pertaining to the measurement of media use via surveys, such as the inability of citizens to accurately recall their news consumption behaviors over a period of time and the potential tendency of some respondents to exaggerate how much political news they actually use (see Prior, 2009, 2013). Furthermore, the current study used data sets that rely on very different measurement strategies. The 2008 NAES asked respondents to provide *individual sources* that they used for political news (for which ideological slant was objectively coded) while the 2012 GfK asked respondents to identify the frequency with which respondents used various *types of sources* (where what constitutes "liberal" or "conservative" news was defined by the respondent). The use of these different measures makes comparisons across each sample impossible, and we acknowledge this may explain observed differences in the role of vulnerability between 2008 and 2012. However, using two distinct approaches is also a potential strength. The 2008 data provide the more conservative estimate, focusing as they do on recall for specific outlets used. The 2012 data, in contrast, provide a more comprehensive measure of the types of media respondents consumed. This is an important complement to the first approach: We are, after all, primarily interested in sources types, not the specific outlets. Regardless of which measurement approach is better, the similarity in results across the two studies is striking, offering more confidence in the robustness of our findings than had we relied on a single measurement approach.

These findings advance our understanding of citizens' engagement with the contemporary information landscape, offering strong evidence that the political environment has significant ramifications for how citizens seek political information. In doing so, this study extends existing theoretical explanations of selective exposure, which have tended to focus on how individual characteristics shape media choice, either promoting homogeneity or fostering diversity. By identifying a role for environment in the information-seeking process, this study suggests that information preferences are not solely rooted in long-standing factors such as ideology or partisanship but are simultaneously influenced by how people perceive and respond to the environment

around them. Moving forward, we hope that scholars will be more attentive to the ways in which political information-seeking behavior might vary across contexts and explore how environmental considerations beyond (and also within) the campaign setting might shape political information preferences.

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Notes

1 Including Hispanics as a subgroup of either black or white in the 2008, NAES question wording does not allow for an adequate comparison between this sample and the 2008 ACS. However, only 5.9% of the NAES sample identified as Hispanic, offering further evidence that whites were overrepresented in the sample.
2 Following Stroud's (2008) coding scheme, the websites of CNN and MSNBC are coded as liberal, FOX as conservative, and the broadcast networks (ABC, CBS, and NBC) as neutral.
3 For both 2008 and 2012, we also estimated the models reported here using several alternative operationalizations of the outcome variable, including: (a) a continuous variable representing the frequency of counterattitudinal site use, and; (b) a ratio of counterattitudinal sources to total online sources. In all cases, the results are comparable to what we report here.
4 While all reported models for 2008 control for proattitudinal site use via a count variable, use of a dichotomous measure for proattitudinal site use yielded similar results. Further, we tested for potential nonlinearity by squaring proattitudinal site use, but the coefficient was nonsignificant.

Supporting Information

Additional supporting information may be found in the online version of this article:

Appendix A. Sample statistics from 2008 NAES and 2012 GfK
Appendix B. Question wording from 2008 NAES and 2012 GfK
Appendix C. Sample website coding from 2008 NAES
Appendix D. Intercorrelation matrices

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