

## ORIGINAL ARTICLE

**Polarization and Partisan Selective Exposure**

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*Today, people can easily select media outlets sharing their political predispositions, a behavior known as partisan selective exposure. Additional research is needed, however, to better understand the causes and consequences of partisan selective exposure. This study investigates the relationship between partisan selective exposure and political polarization using data from the National Annenberg Election Survey. Cross-sectional results show strong evidence that partisan selective exposure is related to polarization. Over-time analyses document that partisan selective exposure leads to polarization. Some evidence supports the reverse causal direction, namely that polarization leads to partisan selective exposure. Implications for the study of media effects and normative implications—both positive and negative—are discussed.*

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In 2004, it was not difficult to find venomous attacks on the U.S. presidential nominees in the media. Conservative Rush Limbaugh lambasted Democratic presidential nominee John Kerry, saying “I got something to say to you: I would never run for president without a plan and I’ll be damned if I can figure out what your plan is!” On the other end of the spectrum, liberal Al Franken was furious with incumbent Republican President George Bush; “I get angry at this President for putting us into this war without thinking it through.” Examples such as these raise important questions about the effects of partisan media. Do partisan media, such as the shows hosted by Limbaugh and Franken, lead people to develop more polarized attitudes toward political candidates? Or, do these types of programs merely attract already polarized audiences? Or—of potentially even graver concern—is there a spiral, as Slater (2007) would suggest, whereby partisan outlets both attract and create ever more polarized audiences? These questions are directly related to our understanding of the relationship between media effects and selective exposure, the idea that people purposefully select information matching their viewpoints.

Over the past half-century, the relationship between media effects and selective exposure has undergone a transformation. Selective exposure made its debut as an explanation for why the media may have *limited* effects on people’s beliefs. The logic

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was that if people were not exposed to information that conflicted with their beliefs, then they would have little impetus to change their beliefs. Often cited as part of this tradition, Klapper (1960) noted, "Selective exposure, selective perception, and selective retention have been shown . . . to be typically the protectors of predispositions and the handmaidens of reinforcement" (p. 64). Early researchers commonly investigated variables that would enhance or constrain people's tendency to engage in selective exposure. Concepts similar to polarization, for example, were investigated as variables that would influence an individual's propensity to seek out congenial information.

Today, however, selective exposure is seen differently. Far from the preamble of a limited-effects perspective, selective exposure may serve as an important predictor of media effects. In his widely read *Republic.com*, for example, Sunstein (2001) issued a strong warning about the consequences of exposure to consonant views; with particular reference to the Internet, he cautioned that polarization and fragmentation could result, leading to less tolerance and more extreme views. This is not to say that all outcomes of exposure to likeminded ideas are necessarily normatively undesirable—some research suggests that exposure to likeminded interpersonal views is connected to higher levels of political participation (see, e.g., Mutz, 2002). As this discussion shows, contemporary research no longer equates selective exposure with limited effects. This study returns to the tension between selective exposure and media effects to examine whether polarization is a cause, a consequence, or both a cause and a consequence of partisan selective exposure (the selection of politically likeminded media outlets).

### **Partisan selective exposure leads to polarization**

Polarization, the strengthening of one's original position or attitude, has received much scholarly attention. There is little disagreement in the scholarly literature that political elites have become increasingly polarized over the past several decades (Fiorina, Abrams, & Pope, 2005; Jacobson, 2003). Whether patterns of polarization in the mass public resemble elite polarization, however, is an issue that truly polarizes academics (see Nivola & Brady, 2006). Some claim that the public has become increasingly polarized (e.g., Jacobson, 2003) whereas others argue that it has not (e.g., Fiorina et al., 2005). An analysis of the media may play an important role in mediating this debate. After all, the media are the primary way in which elite opinions are transmitted to the public. Those selecting media outlets that cohere with their political leanings may be particularly likely to adopt elites' polarized attitudes. Indeed, Mutz (2006) notes that although partisan selective exposure *should* lead partisans to "polarize further in the direction of their original views, this consequence is not yet well documented" (p. 227). Accordingly, this study first evaluates whether engaging in partisan selective exposure contributes to political polarization before turning to an evaluation of the reverse causal direction.

There are good reasons to anticipate that media consumers will develop more extreme and polarized attitudes when they are exposed to views that resonate

with their own. Research on likeminded interpersonal groups provides important justification for a link between congenial media consumption and polarization (Jones, 2002; Stroud, 2007; Sunstein, 2001). Huckfeldt, Mendez, and Osborn (2004), for example, found that those discussing politics with politically likeminded others have more polarized political attitudes compared with those discussing politics with others holding divergent political preferences. This finding is arguably relevant to investigating the effects of exposure to homogeneous media messages. In particular, the two primary explanations that have been offered for why groups tend to polarize should continue to apply in mediated contexts. The first, and stronger, mechanism underlying the tendency for likeminded groups to develop polarized attitudes is that group members are exposed to persuasive arguments (Isenberg, 1986). By hearing arguments that are in favor of their side, group members are persuaded to develop more polarized attitudes in the direction of the group norm. In an identical process, consuming media advancing a shared point of view should provide people with information supporting their perspective and therefore, produce polarization.

The second explanation for polarization is social comparison, whereby people want to be perceived well by their fellow group members and hence adjust their opinions toward the perceived group mean. Although this is not as easily transferred into a mediated context, there may be a social element to information selection as well. Chaffee and McLeod (1973), for example, found that those who discussed a political campaign more often were more likely to seek out partisan political information. Perhaps individuals who belong to homogeneous interpersonal groups seek more likeminded information because this information has social utility—people may want their discussion partners to think they are well informed or they may feel that it is expected that they contribute to the group's argument pool. Related work has shown that homogeneous discussion groups prefer supportive over contradictory information to a degree larger than the preference for supportive information among individuals (Schulz-Hardt, Frey, Lüthgens, & Moscovici, 2000). By seeking and internalizing more favorable partisan information for social reasons, individuals may become more polarized. As this discussion demonstrates, the mechanisms proposed for why homogeneous *interpersonal* networks lead to polarization also could explain why exposure to consonant *media* messages would lead to polarization.

Although there are theoretical reasons to predict a link between the selection of likeminded media outlets and polarized attitudes, the empirical evidence to date is inconclusive. First, although a number of studies have found evidence of a link between media exposure and polarization (Adams et al., 1985; Bimber & Davis, 2003; Druckman & Parkin, 2005; Jones, 2002; Lavine, Borgida, & Sullivan, 2000; Mendelsohn & Nadeau, 1996; Stroud, 2007; Taber & Lodge, 2006), there are exceptions where scholars have found no evidence of polarization (see, e.g., Ball-Rokeach, Grube, & Rokeach, 1981; Paletz, Koon, Whitehead, & Hagens, 1972) or where scholars have raised questions about whether *likeminded* media exposure enhances polarization (Meffert, Chung, Joiner, Waks, & Garst, 2006). Second, none of the studies to date have attempted to consider people's media exposure patterns comprehensively.

Several have examined whether a one-time media exposure, such as viewing a film, is related to polarization (Adams et al., 1985; Ball-Rokeach et al., 1981; Bimber & Davis, 2003; Lavine et al., 2000; Paletz et al., 1972; Stroud, 2007; Taber & Lodge, 2006). Others have investigated the relationship between polarization and exposure to a single media type, whether exposure to newspapers (e.g., Druckman & Parkin, 2005), Rush Limbaugh (e.g., Jones, 2002), or websites (e.g., Bimber & Davis, 2003). This study examines people's media use patterns more comprehensively by looking at their newspaper, radio, cable news, and web consumption. Third, several previous studies have relied on data gathered at a single point in time, making it difficult to draw conclusions about the causal direction of a relationship between polarization and media use (e.g., Lavine et al., 2000; Mendelsohn & Nadeau, 1996). Using more comprehensive data about people's media diets, this study evaluates the following hypothesis:

H1: Partisan selective exposure will lead to polarized political attitudes.

### **Polarization leads to partisan selective exposure**

The research detailed above supports the interpretation that partisan selective exposure should cause higher levels of polarization. The reverse causal direction, namely that polarization motivates partisan selective exposure, is also possible. Investigations of the causal direction are particularly appropriate because variables similar to polarization have been proposed not as consequences, but as antecedents of selective exposure.

In earlier literature on selective exposure, certainty and confidence were proposed as causes of selective exposure. Although certainty, or "the perceived probability that [one's choice] is better than the alternatives" (Mills & Ross, 1964, p. 552), and confidence, or how assured one feels about one's perspective compared with others, have been treated separately in the empirical literature on selective exposure, they are related concepts. For example, in attitude research, certainty and confidence measurements are highly related and have been combined into scales for analysis (see, e.g., Berger & Mitchell, 1989). The similarity between confidence, certainty, and polarization is striking. A polarized individual who is maximally favorable toward a preferred candidate and maximally *unfavorable* toward a disliked alternative arguably has very high levels of confidence and certainty. In addition to the similarity of these concepts on their face, operationalizations are similar in the literature.<sup>1</sup> Several have operationalized polarization as the absolute value of the difference between ratings of two different candidates or political parties (see, e.g., Beasley & Joslyn, 2001; Fiorina et al., 2005; Mutz, 2002). Similarly, Ziemke (1980) included a measure of the relative difference in favorability toward the candidates in *predicting* selective exposure. Several experimental studies investigating moderators of selective exposure have manipulated certainty by having subjects choose between either (a) two equally attractive products or (b) between two differently attractive products (e.g., Mills, 1965). This is quite similar to investigating whether polarized political attitudes

influence exposure, where polarized citizens would find two candidates differently attractive and nonpolarized citizens would find two candidates similarly attractive. As these studies document, concepts similar to polarization have been considered antecedents of selective exposure.

Some posit that certainty/confidence should be negatively related to selective exposure. In this case, the more confident or certain the individual, the *less* likely s/he would be to engage in selective exposure (Festinger, 1964). Given high levels of certainty or confidence, exposure to discrepant information may not be dissonance arousing. Instead of avoiding information, individuals may seek out discrepant information because of their confidence or certainty that they would be able to refute it. Alternatively, if a position is not held with certainty, individuals may seek confirmatory information in order to maintain the position. If this were in fact the case, then relationships between selective exposure and polarization in cross-sectional analysis may be *underestimated* if the positive (selective exposure → polarization) and negative (polarization → selective exposure) influences cancel each other out.

Evidence supporting a negative relationship between certainty/confidence and selective exposure, however, is mixed. A series of experiments aiming to understand the conditions that motivate selective exposure were conducted in the 1960s. Although the use of experiments has the potential to clear up ambiguity in causal direction, selective exposure experiments that have manipulated certainty and confidence have yielded conflicting results. Manipulating certainty by giving subjects differentially preferred products from which to choose, Mills (1965) found that less certain individuals were more likely to seek supportive information; however, Thayer (1969) failed to replicate this finding. Another series of experiments manipulated confidence by giving subjects feedback on their performance on several judgment tasks—some subjects were given positive feedback about their performance and others were given negative feedback. After receiving feedback, subjects made a preliminary judgment on another task and then were given the opportunity to read additional information before making a final judgment. They were permitted to choose from information either confirming or disconfirming their preliminary judgment. Their information selection was recorded and used to measure selective exposure. Although Canon (1964) found evidence that confidence decreased preferences for confirmatory information, others using similar designs failed to replicate the findings (Freedman, 1965; Lowin, 1969; Schultz, 1974). Other studies aiming to manipulate certainty were unsuccessful; Mills and Ross (1964), for example, used a self-report certainty measure to calculate their results after their manipulation of certainty failed. In doing so, they captured only a cross-sectional, not a causal, relationship.

Inconsistency persists in more recent studies. Albarracín and Mitchell (2004) found that those with higher levels of defense confidence were more likely to select *uncongenial* information. Yet Knobloch-Westerwick and Meng (2009) showed that attitude certainty predicted fewer counterattitudinal article choices and Stroud (2007) reported that the political film *Fahrenheit 9/11* attracted already polarized audiences. Most relevant to this study, Ziemke (1980) proposed certainty as an

independent variable that motivates selective exposure to campaign information. Using survey data, Ziemke found a relationship such that “the more certain [the voters] are, the more they select information supportive of *their candidate*” (p. 505). Ziemke’s research suggests that certainty may be *positively* related to polarization and theoretically proposes that certainty precedes polarization. Given inconsistent theories and findings, this study examines both causal directions of the relationship between polarization and partisan selective exposure.

It is also necessary to revisit the relationship between certainty/confidence and selective exposure because of the range of topics that previous research has addressed. It is possible that certainty and confidence operate differently in encouraging or discouraging selective exposure depending on whether we consider business case studies (Freedman, 1965), commercial products (Mills, 1965), or politics (Ziemke, 1980). For some, politics likely is more salient and yields a stronger emotional response than commercial products or business case studies. Accordingly, this study examines the relationship between certainty/confidence and selective exposure within the context of a political campaign.

RQ1: Does polarization/certainty lead to partisan selective exposure?

By examining people’s use of several different media types (e.g., newspaper, radio, cable news, and Internet) and focusing on a political context, this study adds to the current literature by providing a more comprehensive picture of the relationship between partisan selective exposure and polarization/certainty. Furthermore, it provides additional insight into the causal direction of the relationship between these important concepts.

## Method

The data for this study come from the 2004 National Annenberg Election Survey (NAES; Romer, Kenski, Winneg, Adasiewicz, & Jamieson, 2006), a random-digit-dial telephone survey conducted throughout the 2004 U.S. presidential campaign. Two types of data are used here. First, the NAES employed a rolling cross-sectional design. In this design, a fresh set of telephone numbers that have not been previously dialed are released into the field each day of interviewing. In addition, telephone numbers where a respondent has not completed the survey are redialed. Using this method, data from each day of interviewing includes both those respondents who were reached on the first dial and those who required more dials before completing the survey. This design yields daily random cross-sections of the population. The response rate for the rolling cross-sectional survey was 22% (calculated using the RR1 formula from the American Association for Public Opinion Researchers). For this study, rolling cross-sectional data collected between June 9 (the day after the final primary election) and November 1, 2004 are used. Second, the NAES included four different panel surveys conducted at various points during the election season. Panels were conducted around the Democratic National Convention (prewave 7/16-7/25/04, postwave



7/30-8/8/04, and recontact rate 42%), the Republican National Convention (prewave 8/20-8/29/04, postwave 9/3-9/13/04, and recontact rate 36%), the debates (prewave 9/20-9/29/04, postwave 10/14-10/24/04, and recontact rate 41%), and the general election (prewave 7/15-11/1/04, postwave 11/4-12/28/04, and recontact rate 43%).

### Measurement: Controls

The analysis described in this study controls for demographic, political orientation, and media use variables. Two control variables are particularly important to mention: strength of ideology/partisanship and political knowledge. Theoretically, these variables should be related to both polarization/certainty and partisan selective exposure. Those with higher levels of political knowledge are better *able* to detect partisan cues that could lead them to select politically likeminded media and to develop polarized attitudes. Those with higher levels of political knowledge also may be better able to counterargue the information, thus yielding polarization even in the face of contradictory information. Furthermore, the more information respondents have in favor of their opinion, the more certain they may feel about their opinion. Those with stronger partisan attachments are more *motivated* to select politically likeminded media, to process information in ways that support their existing partisan predispositions, and to hold their attitudes with certainty. Empirical research supports these ideas: citizens with higher political knowledge and stronger partisan attachments are more likely to select likeminded news (Garrett, 2009; Stroud, 2008; Taber & Lodge, 2006) and to hold more extreme attitudes (Meffert et al., 2006; Taber & Lodge, 2006). For these reasons, all models include both political knowledge and partisan/ideological extremity as controls. A description of all of the control variables used in the analysis is included in the Appendix.

### Measurement: Polarization

Although there are numerous ways in which polarization could be operationalized, this study uses respondent reactions to Bush and Kerry in the 2004 presidential election. Survey respondents were asked, "Now for each of the following people in politics, please tell me if your opinion is favorable or unfavorable using a scale from 0 to 10. Zero means very unfavorable, and 10 means very favorable. Five means you do not feel favorable or unfavorable toward that person. Of course you can use any number between 0 and 10." They were asked this question both for Bush ( $M = 5.25$ ,  $SD = 3.71$ ) and for Kerry ( $M = 5.07$ ,  $SD = 3.29$ ). Polarization, computed by taking the absolute value of the difference between ratings of Bush and Kerry for each respondent, had a mean of 5.56 and a standard deviation of 3.22. On average, respondents rated Bush 5 points more/less favorably than Kerry.

Typically, polarization is conceptualized in terms of the absolute position of attitudes. At first glance, the present polarization measure may seem somewhat different from this standard definition. For some types of attitude objects (e.g., attitude toward a public policy issue), polarization might be measured using a scale from very favorable to very unfavorable. More extreme positions on the scale would

signal more polarization. Note that this scale is bipolar, capturing attitudes about two sides of a single issue. Favorable attitudes toward the *pro* side of the issue/unfavorable attitudes toward the *con* side of the issue are on one pole of the attitude scale. Favorable attitudes toward the *con* side of the issue/unfavorable attitudes toward the *pro* side of the issue are on the other pole of the attitude scale. To measure polarization, one could use a folded measure of favorability/unfavorability with higher values corresponding to more extreme attitudes.

In a similar way, attitudes toward Bush and Kerry can be considered two poles on a favorability scale. There has been some debate about whether attitudes toward the Democratic and Republican parties and Democratic and Republican candidates are appropriately considered as bipolar, with favorable attitudes toward Democrats/unfavorable attitudes toward Republicans on one pole and favorable attitudes toward Republicans/unfavorable attitudes toward Democrats on the other pole. Several scholars have provided evidence, however, that public reactions to Democrats and Republicans are unidimensional and bipolar (Craig, Martinez, & Kane, 1999; Green, 1988; Greene, 2005), as are public reactions to national Democratic and Republican political figures (Craig et al., 1999; Green, 1988). The measure employed in this study, therefore, is consistent with previous ways of conceptualizing polarization for other attitude objects. Polarization also has been measured similarly in prior literature examining partisan polarization (see, e.g., Beasley & Joslyn, 2001; Fiorina et al., 2005; Mutz, 2002).

### **Measurement: Partisan selective exposure**

In order to operationalize partisan selectivity, two steps were taken, as discussed in Stroud (2008). The first step was to identify the partisan leanings of different outlets. The second step was to operationalize the selection of politically congenial media outlets. Both of these steps are discussed in more detail below.

#### *Newspapers*

Those reading a newspaper in the past week were asked to identify the newspaper they read most often. The newspapers were categorized based on the 2004 presidential candidate endorsed by the newspaper. Certainly using newspaper endorsements to measure newspapers' political leanings lacks some precision; however, several studies have found a relationship between newspaper endorsements and news media content (D'Alessio & Allen, 2007; Druckman & Parkin, 2005; Kahn & Kenney, 2002). Of the 29,298 respondents who identified the newspaper they read most often, 77% of responses were classified. Other responses were unable to be classified because the named newspaper could not be found or was indeterminate (e.g., respondents noting that they read the *Times* without specifying which *Times*), or because the newspaper did not provide their endorsement information after being contacted. Of the classified respondents, 35% read a newspaper that endorsed Bush and 46% read a newspaper that endorsed Kerry. The remainder mainly read newspapers that did not endorse a candidate. From this, two dichotomous variables were created: one measuring reading



newspapers endorsing Kerry, and one measuring reading newspapers endorsing Bush.

#### *Political talk radio*

Respondents who listened to talk radio or National Public Radio (NPR) in the past week were asked to identify the radio shows and hosts to which they listened. Their responses were categorized as liberal or conservative based on the self-identifications of radio hosts/shows, the ideological affiliations ascribed to the programs by trade magazines (e.g., *Talkers*), or how prior research classified the programs. Seventy-eight percent of responses were categorized using this method. The remaining responses either were unable to be located or were indeterminate (e.g., some respondents only said the radio station frequency, e.g., "101.1"). Of those who said that they listened to political talk radio (including those naming nonpolitical programs and those naming radio programs that were not able to be categorized), 28% listened to conservative programs and 25% listened to liberal programs.

#### *Cable news*

Respondents who watched cable news were asked to name the news network they watched most often. Thirty-four percent reported viewing FOX most often, 45% CNN, and 12% MSNBC. Although all three identify as objective outlets, content analytic investigations suggest that FOX coverage tends to be more supportive of conservative and Republican beliefs in comparison to other outlets (Aday, Livingston, & Hebert, 2005; Center for Media and Public Affairs, 2003, 2004a, 2004b; Groseclose & Milyo, 2005; Project for Excellence in Journalism, 2004). Based on these studies, CNN and MSNBC are treated as consistent exposure for liberals and Democrats and FOX is treated as consistent exposure for conservatives and Republicans.

#### *Political Internet*

Respondents with Internet access who had obtained information about the campaign for president online in the past week were asked to identify the websites that they accessed. Twelve percent stated that they had accessed a candidate website, 60% a news organization website, and 32% another website. Responses from those identifying another website were coded as to whether the websites leaned toward conservative or liberal perspectives. A subset of responses were coded by a second coder to ensure that the classification system was reliable (Krippendorff's, 2004;  $\alpha = .96$ ). Of the 3,343 open-ended responses to this question, 2,712 were able to be categorized. Most respondents named nonpartisan or nonpolitical websites (e.g., AOL). Twelve percent named conservative-leaning websites (e.g., rushlimbaugh.com) and 14% named liberal-leaning websites (e.g., moveon.org). Again, two variables were created: one for accessing liberal-leaning websites and one for accessing conservative-leaning websites.

#### *Evaluating the media use classifications*

To evaluate the validity of the coding scheme described above, several analyses were conducted. First, analysis was conducted to determine whether liberals and Democrats

were more likely to use Kerry-endorsing newspapers, CNN/MSNBC, liberal radio, and liberal websites and whether conservatives and Republicans were more likely to use Bush-endorsing newspapers, FOX, conservative radio, and conservative websites. Analysis confirmed that this was the case (Stroud, 2008). In addition, an analysis was conducted to evaluate whether there were overlaps in media usage. It would be expected, for example, that watching CNN/MSNBC would increase the probability that someone would read a Kerry-endorsing newspaper, listen to liberal radio, and access liberal websites. Analysis documented that consuming one source classified as liberal increased the likelihood of consuming another liberal source and that consuming one source classified as conservative increased the likelihood of consuming another conservative source.

#### *Indices of media exposure*

As the media use variables formed two clusters, two indices of media exposure were created from the outlet-specific measures of partisan media use. The first index, exposure to conservative media outlets, was created by summing reading newspapers endorsing Bush, listening to conservative talk radio, watching FOX, and accessing conservative websites (all survey respondents, including those who did not consume any media and thus received a 0 on this scale,  $M = 0.57$ ,  $SD = 0.76$ , range 0–4). The second index, exposure to liberal media outlets, was created by summing reading newspapers endorsing Kerry, listening to liberal talk radio, watching CNN/MSNBC, and accessing liberal websites ( $M = 0.78$ ,  $SD = 0.80$ , range 0–4). Please note that the terms “liberal media” and “conservative media” are used loosely and merely to delineate two patterns of media consumption.

#### *Partisan selective exposure*

Partisan selective exposure not only involves the selection of partisan media, but also one's political predispositions. Therefore, including the respondents' political predispositions was necessary in order to capture partisan selective exposure. Respondent political predispositions were assessed by asking respondents a series of questions about their political ideology and partisanship; descriptive statistics are included in the Appendix. Ideology and partisanship were significantly correlated ( $r = .49$ ,  $p < .001$ ) and were combined into a single measure of political leanings with larger values indicating stronger liberal Democratic leanings and smaller values indicating stronger conservative Republican leanings (range = 2–10,  $M = 5.84$ ,  $SD = 2.14$ ).

To model partisan selective exposure's effect on polarization, interaction terms between respondent partisan media use and respondent political leanings were used in the analysis. Including an interaction term allows for conclusions about (a) the effect of consuming conservative and liberal media and (b) whether this effect is enhanced when the respondents' political leanings correspond with the media outlet, as would be anticipated by the idea of partisan selective exposure. In the over-time analysis, after taking into account how polarized respondents were in the prewave, the interaction term allows for an evaluation of whether using liberal [conservative]

media enhances polarization among liberals [conservatives] in the postwave more than others. To model the effect of polarization on partisan media use (the reverse causal argument that polarized attitudes motivate partisan media use), interactions between ideology/partisanship and polarization are used to predict partisan media use. After taking into account prewave partisan media use, the interaction term allows for an evaluation of whether polarized respondents are more likely to consume *any* type of partisan media or whether polarized respondents are more likely to consume *likeminded* partisan media in the postwave. Here, the analysis allows for conclusions about whether more polarized conservative Republicans and more polarized liberal Democrats consume more conservative and liberal media, respectively.

## Results

The first analytic step employed here is to evaluate whether the interactions between ideology/partisanship and partisan media use are significant in predicting political polarization.

The regression analyses in Table 1 document a cross-sectional relationship between polarization and partisan selective exposure that exists in the presence of extensive controls. Liberal Democrats consuming more liberal media outlets hold more polarized attitudes relative to other liberal Democrats. Conservative Republicans consuming more conservative media outlets hold more polarized attitudes relative to other conservative Republicans. The interactions also document that uncongenial media use is related to lower levels of polarization compared to politically likeminded others.

One concern may be that media use is a reflection of community standards. If the regressions from Table 1 are rerun using hierarchical linear modeling with survey respondents clustered into congressional districts and the percentage of the Bush vote within each congressional district included as a control, the results are unchanged. Furthermore, if each individual media type is modeled separately (e.g., Polarization = Media type + Ideology/partisanship + Media type  $\times$  Ideology/partisanship + Controls), the interaction term is significant ( $p < .05$ ) for Bush-endorsing and Kerry-endorsing newspapers, conservative and liberal talk radio, FOX, CNN/MSNBC, and conservative Internet use. The main effect of liberal Internet use is significantly ( $p < .05$ ) and positively related to polarization. Thus, there is evidence that partisan selective exposure is related to polarization irrespective of media type.

Over-time analyses allow for an investigation into whether partisan selective exposure leads to polarization. These analyses are warranted because a plausible reverse causal argument can be made, namely, that more polarized individuals are motivated to engage in selective exposure. In evaluating the causal direction, two techniques are used. First, cross-lagged panel regressions are computed using the four two-wave panel surveys. Yanovitzky and Cappella (2001) use a similar type of analysis in their investigation of the effects of political talk radio. Adopting their discussion to the current application, they note that including a lagged measure of the dependent

**Table 1** Regression Analyses Predicting Political Polarization

Model 1		Model 2	
Ideology/ partisanship	−0.03* (0.01)	Ideology/ partisanship	−0.03** (0.01)
Conservative media use	−0.02 (0.04)	Liberal media use	−0.14*** (0.04)
Interaction	−0.13*** (0.02)	Interaction	0.15*** (0.02)
R-square	0.21	R-square	0.21

Notes: Unstandardized coefficient (SE).

Ideology/partisanship (higher values correspond with stronger liberal Democrats) and liberal/conservative media use are mean centered. Control variables (see Appendix) are included in the model, but are not shown here. Full tables, including control variables, are available upon request. Interaction results are unchanged if ideology or partisanship is used in place of ideology/partisanship. As there is some controversy regarding whether NPR should be counted as a liberal outlet (consider that Cappella, Turow, & Jamieson, 1996, coded Diane Rehm of NPR as liberal and *Talk of the Nation* as moderate), analysis was repeated without NPR-users classified as liberal talk radio listeners. Results are unchanged. Although liberal and conservative media use are modeled separately, if they are included as independent variables in the same model, the interactions with ideology/partisanship remain significant ( $p < .001$ ) and in the same directions.

$N = 12,840$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

variable in a regression model allows one to evaluate whether the independent variable of interest independently contributes to the dependent variable. To the extent that partisan selective exposure contributes to polarization after controlling for the respondents' prewave polarization, there is evidence that partisan selective exposure is causally related to polarization. The reverse causal direction also is tested.

For each of the four panel surveys, four analyses were run. Two tested whether conservative and liberal partisan selective exposure, respectively, contributed to polarization. The other two tested whether polarization contributed to (a) conservative media use or (b) liberal media use. All models followed the same general form: Dependent Variable (DV)<sub>time 2</sub> = DV<sub>time 1</sub> + Independent Variable (IV)<sub>time 1</sub> + Ideology/partisanship(IP) + (IV<sub>time 1</sub> × IP) + Controls. A summary of these 16 analyses is provided in Table 2.

In Table 2, the first three rows of coefficients correspond to the DNC panel survey, the next three rows correspond to the RNC panel survey, then the debates panel survey, and finally, the general election panel survey. The first and second columns of coefficients test whether conservative or liberal media use, respectively, enhance polarization. The third and fourth columns of coefficients test whether polarization leads to conservative or liberal media use.

**Table 2** Sixteen Panel Regression Analyses Predicting Polarization and Partisan Media Use

	Media Use → Polarization			Polarization → Media Use	
	Conservative media use	Liberal media use		Conservative media use	Liberal media use
DNC panel					
Ideology/ partisanship	0.09* (0.04)	0.08+ (0.04)	Ideology/ partisanship	−0.03* (0.01)	0.03+ (0.02)
Conservative/ liberal media use	0.01 (0.13)	−0.11 (0.11)	Polarization	0.002 (0.01)	0.01 (0.01)
Interaction	−0.10+ (0.05)	0.09+ (0.05)	Interaction	−0.001 (0.004)	0.004 (0.005)
R-square	0.64	0.64	R-square	0.65	0.53
N	537		N	533	
RNC panel					
Ideology/ partisanship	−0.03 (0.04)	−0.04 (0.04)	Ideology/ partisanship	−0.01 (0.01)	0.03* (0.01)
Conservative/ liberal media use	0.09 (0.13)	−0.17 (0.12)	Polarization	−0.0001 (0.01)	0.0002 (0.01)
Interaction	−0.05 (0.05)	0.10* (0.05)	Interaction	−0.004 (0.004)	0.01 (0.004)
R-square	0.66	0.66	R-square	0.58	0.50
N	579		N	578	
Debates panel					
Ideology/ partisanship	0.10* (0.04)	0.09* (0.04)	Ideology/ partisanship	−0.04** (0.01)	0.05*** (0.01)
Conservative/ liberal media use	0.14 (0.12)	−0.03 (0.11)	Polarization	−0.003 (0.01)	0.002 (0.01)
Interaction	0.004 (0.05)	0.002 (0.05)	Interaction	−0.01 (0.004)	0.004 (0.004)
R-square	0.65	0.65	R-square	0.58	0.53
N	675		N	670	
General election panel					
Ideology/ partisanship	−0.05** (0.02)	−0.05* (0.02)	Ideology/ partisanship	−0.04*** (0.01)	0.05*** (0.01)
Conservative/ liberal media use	−0.04 (0.06)	−0.13* (0.05)	Polarization	0.01 (0.004)	−0.001 (0.004)
Interaction	−0.06* (0.02)	0.04+ (0.02)	Interaction	−0.005** (0.002)	0.004* (0.002)
R-square	0.48	0.48	R-square	0.57	0.45
N	3,298		N	3,276	

Notes: Unstandardized coefficient (SE).

Independent variables ideology/partisanship (higher values correspond with stronger liberal Democrats), polarization, and partisan media use are mean centered. Control variables (see Appendix), and prewave values of the dependent variable are not shown in this table.

<sup>+</sup> $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

As Table 2 shows, in five of eight cases, the interaction between partisan media use and ideology/partisanship is significant or marginally significant. In these instances, there is evidence that partisan selective exposure is related to higher polarization and that the consumption of uncongenial media is related to lower polarization. In addition, the interaction between polarization and ideology/partisanship is significant in two of eight cases (both in the general election panel) in predicting partisan media use. Although the panel analyses provide somewhat stronger support for the idea that partisan selective exposure leads to higher levels of polarization, there is an indication that polarization also contributes to higher partisan selective exposure.<sup>2</sup>

The second strategy used to evaluate the direction of causality is time series analysis. Here, the relationship between the average level of partisan selective exposure for each day and the average level of polarization for each day are analyzed. Only those respondents identifying as conservative Republicans or liberal Democrats are included in the analysis because clear determinations about congenial exposure can be made only for these respondents. For conservative Republicans, the number of conservative outlets consumed is used as a measure of partisan selective exposure. For liberal Democrats, the number of liberal outlets consumed is used as a measure of partisan selective exposure. Using the daily average amount of partisan selective exposure (the average number of likeminded media types used) and the daily average polarization, time series analysis is employed. If the mean level of polarization from prior days (at time  $t-1$ ,  $t-2$ , etc.) is significantly related to the mean value of partisan selective exposure (at time  $t$ ), then there is an indication that polarization leads to partisan selective exposure. Alternatively, if the mean level of partisan selective exposure from prior days contributes to the mean value of polarization, then there is evidence that partisan selective exposure leads to political polarization.<sup>3</sup>

The results of this analysis provide additional evidence that partisan selective exposure leads to polarization. At the aggregate level, political polarization increases linearly over time (time trend  $B = 0.006$ ,  $SE = 0.001$ ,  $p < .001$ ). This documents that over the course of the 2004 general election season, partisans became increasingly polarized. Partisan selective exposure has a significant contemporaneous effect on polarization—on any given day, the mean level of polarization is related to the mean amount of partisan selective exposure (partisan selective exposure  $B = 0.95$ ,  $SE = 0.30$ ,  $p < .01$ ). Furthermore, partisan selective exposure has a marginally significant lagged effect on polarization ( $B = 0.52$ ,  $SE = 0.30$ ,  $p < .10$ ). Higher values of partisan selective exposure on a prior day contribute to higher levels of polarization on subsequent days. This is additional evidence that partisan selective exposure contributes to polarization. Alternatively, there is no evidence that lagged polarization leads to partisan selective exposure.

## Discussion

This study demonstrates that partisan selective exposure contributes to political polarization. The results extend single-exposure findings (e.g., Taber & Lodge, 2006)



to show that patterns of partisan selective exposure are broadly related to higher levels of polarization. Furthermore, these results document that research findings showing a relationship between homogeneous *social network* exposure and political polarization (Huckfeldt et al., 2004) can be extended to homogeneous *media* exposure. These findings also supplement work by Prior (2007). Prior focuses on compositional change in the electorate—whereby less polarized individuals participate less—yet he notes that his model does not explain trends of increasing polarization in the electorate. This study finds that partisan selective exposure can help to explain rising polarization in attitudes toward political candidates.

This study also investigates the causal direction of the relationship, finding that congenial media exposure contributes to higher polarization. Limited evidence suggests that polarization leads to congenial media exposure, suggesting the possibility of a spiral effect (Slater, 2007). This type of a spiral could indicate nonlinear growth of both polarization and partisan selective exposure up to a maximum level. In isolating the effect of partisan selective exposure, however, this study examines only one variable's influence on polarization. There certainly are other variables that influence polarization and that may counteract some of the effects of partisan selective exposure; discussing politics with nonlikeminded others, for example, may limit polarizing effects (Huckfeldt et al., 2004). Research into other variables that work in concert with partisan selective exposure to influence polarization is warranted.

There are several important limitations of this analysis. First, there are limits to the generalizability of the conclusions drawn in this study. The data were gathered during the 2004 U.S. presidential election and whether these results are generalizable to other contexts demands further examination. Furthermore, whether the relationships between selective exposure and polarization operate similarly in nonpolitical contexts requires additional research. Second, the measures of media use employed in this study, while extensive compared with many other studies, also constrain the conclusions. For example, open-ended responses to where people went to obtain information online were gathered only for respondents who said they had gone to a nonnews organization, noncandidate website. More detailed responses would allow for more precise measurement. While acknowledging the measurement limitations, it is worthwhile to note that the cross-sectional relationship between partisan selective exposure and polarization persists across media types (newspaper, radio, cable news, and Internet). Third, this study uses two-wave panels to investigate the causal relationship between polarization and partisan selective exposure. Although this method has strengths compared with other methods (e.g., cross-lag panel correlations, see Kessler & Greenberg, 1981), it does not allow for definitive conclusions about causal direction. This is the case because, for example, one cannot be sure that different time lags between the pre- and postwave survey would not yield different conclusions (Kessler & Greenberg, 1981; Slater, 2004). By incorporating both the panel survey analysis and the time series analysis, however, this study provides stronger evidence that polarization does result from partisan selective exposure.

This study has a number of strengths in terms of contributing to existent literature. In employing a large-scale, national-sample survey, findings from the NAES are generalizable to the broad population. Furthermore, although understanding the attitudinal effects of a single exposure are helpful (e.g., Adams et al., 1985; Ball-Rokeach et al., 1981; Paletz et al., 1972; Stroud, 2007; Taber & Lodge, 2006), this analysis uses measures designed to more closely capture the polarizing effects of one's mediated *environment*. This study consistently documents that partisan selective exposure contributes to political polarization. Finally, this study provides some guidance on how long it takes for the media to contribute to polarization by using four different panels with different amounts of time between the pre- and postwave and analysis conducted by looking at daily variation at the aggregate level. Although this study cannot provide unequivocal conclusions about the appropriate lag length, the empirical findings here can help to guide future theoretical advancements. In this study, there was evidence that partisan selective exposure contributed to political polarization in both the short and long term. If these patterns persist throughout additional analyses in other contexts, this provides insight for developing theories about *why* the media have this effect. Theoretical accounts of the relationship between polarization and partisan selective exposure must take care to explain both shorter and longer term effects.

In early research and theory, selective exposure was proposed as a rationale behind limited media effects. For example, in their ambitious overview of findings regarding human behavior, Berelson and Steiner (1964) noted that "people tend to see and hear communications that are favorable or congenial to their predispositions; they are more likely to see and hear congenial communications than neutral or hostile ones" (p. 529). This correspondence translates into a limited media effects perspective because if people are exposed only to views matching their beliefs, then they are unlikely to change their beliefs. Although this study broadly agrees with Klapper (1960) that selective exposure is a "handmaiden of reinforcement" and a "protector of predispositions" (p. 64), it significantly parts ways with the limited-effects perspective. As a handmaiden of reinforcement, the media do not fail to influence the public. Instead, partisan selective exposure produces more polarized attitudes. This research points to the importance of considering characteristics of both the media and the media consumer when analyzing the media's political effects. Just as different media outlets may produce different effects, people's political predispositions moderate the influence of the media.

Does this study document something that should concern citizens in a democratic system? Yes and no. On one hand, partisan selective exposure and polarization may spark more political participation—a democratically desirable goal (see, e.g., Mutz, 2002). On the other hand, partisan selective exposure and polarization may engender a less tolerant and more fragmented public. The trick is to devise ways to counteract any detrimental effects of partisan selective exposure while encouraging the beneficial effects. Specifically, balancing forces that pull people apart (e.g., partisan selective exposure and polarization) with forces that pull people together (e.g., shared media

experiences) can help to advance this goal (Carey, [1969] 1997; Katz, 1996). The challenge becomes figuring out *how* to increase community-building forces in the face of increasing opportunities for selectivity.

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## Notes

- 1 This is not to say that certainty and polarization always will be strongly related (see e.g., Krosnick & Petty, 1995). The way in which these variables have been operationalized in research on selective exposure, however, suggests a strong relationship.
- 2 Identical polarization scores can result from different impressions of the candidates. For example, one could receive a prewave polarization score of 5 if (a) one rated one candidate a 10 and the other a 5 *or* if (b) one rated one candidate a 5 and the other a 0. Analysis evaluated whether these different constellations of prewave candidate favorabilities (given similar prewave polarization scores) moderated the relationship between partisan selective exposure and polarization. The analysis evaluated whether those with room to become more positive toward a favored candidate yet little room to become more negative toward the opposition differed from those with room to become more negative toward a least favored candidate yet little room to become more positive toward a favored candidate. In no instance did the different constellations of prewave favorability moderate the relationship between partisan media use and polarization.
- 3 Before progressing with over-time analysis, the series were evaluated for the presence of trends (Diebold, 2004; Romer, 2004). In this study, the variables increased linearly during the time period under analysis. Second, the series were evaluated for the presence of autocorrelation by inspecting the autocorrelation and partial autocorrelation plots. The partisan selective exposure series displayed no evidence of autocorrelation. There was some evidence of autocorrelation for the polarization series at a lag of 4. Incorporating four lags into the model, however, did not improve the model fit. The same results continue to hold if: a lag of polarization is incorporated in the model, if the days of the week are controlled in the analysis (this does not improve model fit), or if the detrended series are used in the model.

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## Appendix: Variable descriptions

*Demographics:* Education ( $M = 14.29$ ,  $SD = 2.47$ ); age ( $M = 48.23$ ,  $SD = 16.50$ ); income ( $M = 64.84$  thousand dollars,  $SD = 49.96$ ); gender (56% female); race/ethnicity (8% Black/African-American, 8% Hispanic).

*Media use:* (days in past week) National network news ( $M = 2.57$ ,  $SD = 2.62$ ), 24-hour cable news channel ( $M = 3.06$ ,  $SD = 2.84$ ), local television news ( $M = 3.96$ ,  $SD = 2.77$ ), read a newspaper ( $M = 3.76$ ,  $SD = 2.91$ ), NPR ( $M = 1.17$ ,  $SD = 2.21$ ), non-NPR talk radio ( $M = 1.29$ ,  $SD = 2.18$ ), use Internet for information about presidential campaign ( $M = 1.00$ ,  $SD = 2.02$ ), Internet access (73%).

*Media attention:* (Range = 0–3, higher values indicate more attention to stories about the campaign for president), national network/cable television news ( $M = 1.60$ ,  $SD = 1.09$ ), local television news ( $M = 1.32$ ,  $SD = 1.07$ ), newspaper coverage ( $M = 1.37$ ,  $SD = 1.12$ ).

*Political orientations:* Political ideology (9% very conservative, 30% conservative, 39% moderate, 18% liberal, and 5% very liberal), Partisanship (20% strong Republican; 23% not strong/lean Republican, 10% no leanings, 26% not strong/lean Democrat, and 21% strong Democrat), Political interest (range = 1–4, higher values indicate more interest,  $M = 3.10$ ,  $SD = 0.90$ , not included on survey 10/8–10), political discussion in past week with friends/family ( $M = 3.22$ ,  $SD = 2.53$ ), general political knowledge (5 items,  $\alpha = .64$ ,  $M = 3.21$ ,  $SD = 1.47$ , asked of 2/3 of the sample between 7/16–8/8, 8/20–9/12, 9/20–10/24), strength of political leanings (range = 0–4, higher values are stronger leanings,  $M = 1.83$ ,  $SD = 1.12$ ).

*Political event exposure:* (included as controls in relevant event panels) Debate exposure (four items,  $\alpha = .89$ ;  $M = 10.53$ ,  $SD = 4.37$ ), Republican National Convention exposure (three items assessing exposure to various parts of the convention,  $\alpha = .86$ , range 0–9,  $M = 3.18$ ,  $SD = 3.28$ ), Democratic National Convention exposure (three items,  $\alpha = .85$ , range 0–9,  $M = 3.02$ ,  $SD = 3.25$ ).