The Effect of “False” Polarization: Are Perceptions of Political Polarization Self-Fulfilling Prophecies?*

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Abstract

The past decade has witnessed an explosion of interest in the partisan polarization of the American electorate. Yet no research so far has considered the causes and consequences of perceptions of polarization. Does perceived polarization cause actual attitudinal polarization? Across multiple studies, we show that media coverage of polarization leads citizens to exaggerate the degree of polarization in the mass public, a phenomenon known as false polarization. We also find that false polarization causes voters to moderate their own issue positions but increases dislike of the opposing party. We conclude by discussing the implications of our findings for understanding polarization in the mass public and the potential consequences of polarized media coverage.

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Recent years have seen an explosion of scholarly debate over the extent of mass partisan polarization in the United States. Despite the plethora of studies on this topic (for a review, see Fiorina and Abrams 2008), an important, related concept has been overlooked by political scientists—perceptions of mass polarization.\(^1\) If citizens think the mass public is more divided than it actually is, does this have political ramifications?

We argue that it does. This article explains how media coverage, by depicting the mass public as polarized and deeply divided along partisan lines, causes individuals to exaggerate the extent of polarization, a phenomenon known as “false” polarization. People react emotionally to seeing this polarization and discord, which causes them to evaluate political figures more negatively and consequently moderate their issue positions. We show experimentally that while false polarization decreases issue polarization, it exacerbates affective polarization, or people’s dislike of opposing partisans.

This does not imply, however, that false polarization generates a nation of moderates who intensely dislike each other. Instead, we find that issue moderation only occurs among those who are centrist \textit{ex ante}. Conversely, increased affective discord is universal. The result is two divergent groups: a mass of voters in the middle with greater antipathy toward opposing partisans, and people on the extremes who also more intensely dislike the opposition. As we explain in the conclusion, these patterns are consistent with predictions from both sides of the polarization debate, and underscores the importance and relevance of examining perceptions of polarization, a heretofore under-explored topic.

We make three principal contributions. First, we introduce false polarization to the political science literature and explain how it is worthy of study as its own concept. Second, we explain how false polarization shapes citizens’ issue positions and attitudes toward the opposition. Our study also allows us to disentangle the direction of causality between perceived

\(^1\)Several recent studies have explored how people’s perceptions of \textit{elite} polarization affect their attitudes and behavior (Druckman, Peterson, and Slothuus 2013; Hetherington 2001), but this is a separate topic from the focus here.
polarization and issue extremity, something not possible in earlier studies. Finally, we show how media coverage of a polarized electorate has important, and previously undocumented, consequences for people’s attitudes.

What Is False Polarization, and Why Does It Matter?

Humans are generically prone to over-estimate the distinctiveness of rival groups, a phenomenon known in social psychology as “false polarization” (Pronin, Puccio, and Ross 2002). People tend to naturally assume that different groups—such as pro-life activists and pro-choice activists, men and women, blacks and whites, and so forth—hold more distinctive issue positions and have less in common than is actually the case (Chambers, Baron, and Inman 2006; Sherman, Nelson, and Ross 2003). For example, pro-life and pro-choice individuals perceive themselves as much farther apart on abortion than they are in reality (Robinson et al. 1995).\footnote{The false polarization effect is fairly universal and not simply limited to political domains and attitudes. For example, Monin and Norton (2003) leverage a natural experiment during a college water conservation crisis to show that non-bathers and bathers exhibited false polarization about the ethics of showering during the crisis.} A false polarization effect, therefore, occurs any time perceived polarization exceeds actual polarization.

This same phenomenon, we argue, should apply equally well to partisan political divisions in the United States. In particular, we argue that Democrats and Republicans at the mass level perceive greater differences between the two sides than actually exists. To be clear, our argument is distinct from arguments about the level (and changes) of actual polarization; we leave that to others. Rather, our argument is that perceived polarization is larger than the actual polarization of attitudes (whatever that level is). This leads us to state our first testable hypothesis: Hypothesis 1: People will over-estimate the actual level of partisan polarization in the mass electorate (i.e., there is a “false polarization” effect).

We argue that press coverage of mass polarization provides a vehicle for exacerbating false polarization (and therefore for potentially affecting actual polarization). While some
scholars claim that the mass public is not deeply divided, the coverage of partisan polar-
ization in the mass media paints a profound, and perhaps irrevocable, divide in American
politics (see the discussion in Fiorina, Abrams, and Pope 2005). While false polarization
is a general phenomenon, press coverage emphasizing polarization in the mass public will
amplify perceptions of polarization. **Hypothesis 2**: **Press coverage suggesting the electorate
is polarized will increase perceptions of polarization in the mass public compared to press
coverage suggesting that the electorate is moderate.**

Such false polarization matters, we argue, because it shapes people’s attitudes and be-
liefs about the political environment. Some research has found a correlation between the
extremity of individuals’ political beliefs and their perceptions of polarization (Van Boven,
Judd, and Sherman 2012; Westfall et al. 2012). The causal direction of this effect, however,
is unclear, and correlational studies cannot disentangle selection versus treatment effects.
False polarization may produce extremity (a treatment effect), or extreme people may be
more likely to see the world as polarized to begin with (a selection effect). We argue that the
latter possibility is in fact more likely. We contend that the treatment effect of perceived po-
larization is instead that it *moderates* attitudes. Many Americans support compromise and
cooperation as abstract values. For example, in recent survey data, even a majority of Tea
Party supporters recognized the importance of compromise and consensus on critical issues
(Gutmann and Thompson 2012, 26-27). Moderation, open-mindedness, and independence
are considered positive traits and people like thinking of themselves in these terms (Dennis
1988; Klar and Krupnikov 2013). They see concepts like compromise, bipartisanship, and
consensus as important American ideals, and all but the strongest partisans react negatively
to breaching them. We argue that polarized media depictions sharply violate these norms,
and hence increase negative perceptions of the parties at both the mass and elite levels.
As a result, individuals respond by moderating their own attitudes. In effect, they come
to see both sides as too divided and polarized and move toward the middle. Depictions
of a polarized America therefore serve as a sort of “anti-cue,” causing people to become
more moderate on political issues. Hypothesis 3: Increased perceptions of polarization will moderate issue positions.$^3$

However, even if false polarization—and the media coverage promoting it—does not polarize attitudes, it may not be completely benign. Issue-based polarization is not the only type of polarization one can observe. Iyengar, Sood, and Lelkes (2012) introduce the idea of affective polarization, or a personal dislike for the other side, which is distinct from reasoned issue considerations (see also Mason 2012). We expect that increased perceptions of polarization generate negative affect toward the other party. The logic follows the same rationale as above: because ordinary Americans value compromise, consensus, and so forth, when they see individuals rejecting these values, they will have an adverse emotional reaction and evaluate them more negatively. Hypothesis 4: Increased perceptions of polarization will increase affective polarization.

Note that Hypotheses 3 and 4 might at first glance seem at odds with one another: how can media coverage and ensuing false polarization moderate issue positions but increase affective polarization? In both cases, subjects respond negatively to polarized politics, and consequently move away from the parties. This implies a decrease in issue-based polarization, but an increase in affective polarization. Further, the processes by which people form issue attitudes and evaluate political actors are not necessarily the same. Indeed, respondents can hold strong positions without disliking the other side (or vice-versa).

$^3$One could alternatively predict, contra our expectation in Hypothesis 3, that perceived polarization increases attitudinal polarization. This would not be wholly unreasonable, as there is evidence from social psychology that stressing group differences and conflict (such as polarization) increases in-group/out-group thinking (Brewer 1991), and this in turn would move people toward their party’s extreme position. Luckily, the two arguments make fairly sharp contradictory predictions, so if are wrong (and this alternative theory is correct), the data will tell us.
How Do the Media Discuss Polarization?

We argue that press coverage of polarization exacerbates the tendency toward false polarization. This claim rests on an implicit premise that the mass media depict the public as polarized (see Fiorina, Abrams, and Pope 2005, especially chapter 1). To further document this phenomenon, we conducted a content analysis of how the media discuss political polarization and moderation. Specifically, we examined how the media use the words “polarize” and “moderate” (along with their variants) in a political context. For example, when the media talk about polarization, is it with respect to elite polarization, such as polarization in Congress (McCarty, Poole, and Rosenthal 2006), or do they claim that polarization also extends to the mass public? Similarly, when they talk about the role of moderates in politics, do they discuss it broadly, highlighting the role of “swing voters” in elections (Mayer 2007) and moderates in Congressional deal-making (Binder 1999), or do they use the term to refer to a particular individual, such as “a moderate Democratic legislator”? How the media discuss these terms in political contexts may affect how voters perceive the political environment.

We searched for the terms “polarization” and “moderation” (and their variants) in U.S. newspapers during presidential election years from 2000 through 2012. We suspect, consistent with the claims from Fiorina, Abrams, and Pope (2005), that there will be considerable discussion of mass polarization but less discussion of centrism.

We find that in the past decade, stories about political polarization have consistently been more frequent than stories about political moderation. For example, in 2012, there

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4We searched over the entire calendar year in each year. For polarization, we searched for the terms polarize OR polarized OR polarization within the same paragraph as politic OR politics OR political and United States OR U.S. OR America; for moderation, the search was the same except the terms were moderate OR center OR centrist OR bipartisan. We found that qualifiers to politics and the U.S. were necessary to reduce the number of false positive stories (i.e., stories about polarization in Latin American politics). Searches were conducted in the U.S. Newspapers and Wires in Lexis-Nexis, and then the results were restricted to newspapers only.
were 1.8 times as many stories about polarization as about moderation, and over the entire time series, the figure is 1.3. At least in terms of simple counts, stories about polarization outpace stories about moderation.

However, such aggregate story counts might well miss important subtleties, requiring a more careful reading of the media coverage. We took a random sample of 100 articles from each presidential election year (50 discussing polarization, 50 discussing moderation) and coded them according to how they discussed polarization and moderation. We explored whether articles discussing polarization focused on elite polarization, mass polarization (i.e., polarization in the mass public), or both. Similarly, we coded whether stories about moderation talked about the role of moderates generally (for example, the role of swing voters), used a specific example of moderation (i.e., indicating that a particular representative is a “moderate Democrat”), or whether it discussed a lack of moderates in politics.

There has been a marked shift over time in how the mass media discuss polarization. In 2000, stories about elite polarization were more common early in the year, but that shifted after the election to more general treatments of mass and elite polarization, as the famous red state-blue state map entered the media discussion (for vivid examples, see Fiorina, Abrams, and Pope 2005). Since 2004, over 80 percent of stories about political polarization either focus on mass polarization, or discuss polarization as a common feature of elites and masses. For nearly a decade now, the media has presented polarization as simply a key part of both mass and elite politics in contemporary America.

In contrast, media discussions of moderation post-2000 emphasize the lack of moderation, or they point to particular, isolated examples of moderation. In 2000, there was more attention to general moderation in the electorate: fully 50 percent of the stories we examined discussed the crucial role that moderates play in American politics, for example, discussing swing voters as the key to victory (Wattenberg 2000; Berke 2000). In more recent elections, however, discussions of moderation and centrism shifted, with almost no articles discussing the prevalence of moderates in the electorate (fewer than 5 percent of articles in 2008 and
2012 discuss the prevalence of moderates). In their place came articles discussing the lack of moderates, both in Congress (Lengell 2012) and the electorate (Keller 2012), commenting on the strategy of mobilizing the base rather than attracting swing voters.

This content analysis, then, highlights the frequency of media discussions of polarization, and also motivates our experimental setup below. Given the media’s discussion of polarization, does it shape citizens’ attitudes and beliefs?

**Does False Polarization Exist?**

While there is a large literature on false polarization in social psychology, there is no extant work examining the concept in political science. One reason for this is that existing surveys of nationally representative samples do not ask people to report how polarized they perceive their fellow citizens to be.\(^5\) To establish that false polarization exists in the political realm (and test Hypothesis 1), we conducted three surveys: one using a non-probability but diverse sample of American adults from Survey Sampling International (SSI) \((n=254)\), one using a non-probability sample from Amazon’s Mechanical Turk \((n=101)\), and one using a high-quality, nationally representative probability sample from GfK/Knowledge Networks (GfK/KN) \((n=1587)\); we describe these studies in more detail in Online Appendix 1, including the question wordings and response options).\(^6\) In all three studies, we gauged both respondents’ own issue positions, as well as their perceptions of the typical Democratic and Republican voter. We examine a broad set of issues across economic, social, and foreign policy domains: immigration, taxes, gay marriage, abortion, military intervention in Iran, missile defense, criminal justice, public election financing, and free trade.

\(^5\)The American National Election Study (ANES) has asked questions asking people to place “the Republican Party” and “the Democratic Party” on various ideological scales, but when people are reporting their views on the “party” they may be thinking about political elites as opposed to their fellow citizens.

\(^6\)Because the GfK/KN study included experimental manipulations (see below), in calculating the degree of actual vs. perceived polarization we only examine respondents in the control group that did not receive any political information in the form of experimental treatments (in the control condition, \(n=510\)).
As an example item, in the GfK/KN study, respondents were asked:

The tax rates on the profits people make from selling stocks and bonds, called capital gains taxes, are currently lower than the income tax rates many people pay. Do you think that capital gains tax rates should be increased, decreased, or kept about the same?

Respondents were provided a seven-point scale presented horizontally similar to the ANES’s questions on ideological placement. The scale was fully labeled; the response options were “increased a lot,” “increased somewhat,” “increased a little,” “kept the same,” “decreased a little,” “decreased somewhat,” and “decreased a lot.” This and all items were recoded to lie between 0 and 1 with the most liberal response coded as ‘0’ and the most conservative response coded as ‘1.’ In addition to placing themselves on the scale, they also placed the typical Republican and Democratic voters:

What do you think the TYPICAL [DEMOCRATIC/REPUBLICAN] VOTER would want to happen to capital gains tax rates?

Respondents were provided the same seven-point scale. If the false polarization hypothesis is correct, subjects will perceive more polarization than actually exists.

All three studies show a very clear pattern: false polarization is real, and it is quite pronounced (see Figure 1). Across a variety of policy items, survey samples, and question wordings, we find clear evidence that respondents perceive more polarization than actually exists. Consider, for example, the bottom panel of Figure 1, which presents data from GfK/KN. On the issue of capital gains taxes, the average Democrat and Republican are 0.9 units apart on the 1-7 scale: the average Democrat is at 3.19, and the average Republican is at 4.09. However, respondents perceive that the typical Democrat and Republican are 1.66 units apart. The ratio of perceived to actual polarization is 1.84, indicating that respondents

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As explained in further detail below, we exclude leaners in classifying respondents as Republicans and Democrats. The results are similar when including leaners (see Online Appendix 4).
perceive there to be 84% more polarization than actually exists. Looking across all three studies presented in Figure 1, this is an extremely consistent pattern. The minimum inflation of perceived polarization over actual polarization is 27% with some effects approaching six times; the median false polarization effect is 70%. Hence, this is not simply a result of a particular question wording or sampling frame, but rather a more general pattern in public opinion.

Our data from GfK/KN are crucial to establishing the existence of false polarization in the United States. Because these data are from a random sample of the U.S. population (and not a quota or convenience sample), the estimates of the average Democrat and average Republican are valid population estimates of those quantities, not simply driven by politically interested Internet survey takers who may be especially likely to see the country as polarized.

Given our claim that this is false polarization, we should be able to replicate two additional observational findings from the social psychology literature. First, respondents should see identifiers of their own party as more moderate than identifiers of the other party (Conover and Feldman 1982), even though they still exaggerate the extremity of both groups (Van Boven, Judd, and Sherman 2012). We find this exact pattern in our data. For example, in the GfK/KN data, on the issue of immigration, on average, Democrats place the typical Democrat 1.5 units from the center of the issue scale, whereas they place the typical Republican 1.96 units from the center. Likewise, average Republicans place the typical Democrat 2.03 units away from the center of the immigration scale, but they only place the typical Republican 1.55 units away from the center of the scale (both differences are statistically significant at $p < 0.05$; we see a similar pattern for capital gains taxes).

Second, more extreme individuals should perceive greater polarization (Van Boven, Judd, and Sherman 2012). People who are at the extremes themselves should be more likely to see the electorate as deeply divided and polarized. We test this by regressing the perceived level of polarization between Republicans and Democrats (operationalized as the absolute value

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8We report one-tailed $p$-values as we have clear theoretical predictions.
between the respondent’s placement of the typical Democratic and Republican voter on the issue) on attitude extremity (created by folding the seven-point issue scale into a four-point scale of extremity such that moderates are coded as ‘1’ and extremists as ‘4’).

As expected, using the GfK/KN data we find that those who are more extreme perceive more polarization. Across the average of the four issues we tested, the coefficient estimate is 0.156 ($p < .01$). Moving from the most moderate position on the issue scale (1) to the highest level (4) is associated with an increase in perceived polarization by about 0.47 units (0.156 x 3), or 47% of the length of the scale.\footnote{We find similar patterns in the two data sets collected on the non-probability samples as well.}

However, this cross-sectional correlation cannot disentangle the distinct causal pathways of selection and treatment. It could be that false polarization shapes actual extremity, which is the main hypothesis tested in this paper. However, the correlation could also arise because extreme people are more likely to perceive the world as polarized for completely unrelated reasons. For example, they may project their own opinions onto others (Goel, Mason, and Watts 2010), or associate in extreme circles (a manifestation of the availability heuristic). To understand how the media’s depiction of polarization affects political attitudes, an experimental approach is needed.\footnote{Of course, it is certainly the case that both selection and treatment effects occur here. Our paper is only an effort to disentangle them, rather than to claim a strong either/or dichotomy.}

**An Experimental Test of Our Argument**

To test Hypotheses 2, 3, and 4, we designed and conducted a three-condition, between-subjects experiment. Subjects were randomly assigned to read one of three newspaper articles: an article describing the electorate as deeply polarized (the polarized condition), an article depicting the electorate as relatively moderate and centrist (the moderate condition), and an apolitical article about a popular television program (the control condition). The text of the articles (and accompanying visual information shown to respondents) is presented in Online Appendix 2.
When discussing polarization, reporters typically rely on exemplification—they discuss polarization by talking about particular people’s beliefs (the exemplars), rather than abstract statistics or generalizations (Zillmann and Brosius 2000). Accordingly, we designed the treatment articles to focus on exemplars of moderation and extremism, including detailed in-person interviews. Because humans intuitively have a poor grasp of statistical relationships, journalists rarely rely primarily on quantitative data to provide evidence for their claims. Instead, they typically support their arguments by discussing the stories of individual people (Iyengar 1991). Accordingly, in our experiment, when respondents read about polarization/moderation, they learn about individuals with polarized/moderate attitudes. Even when statistical information such as polling results are present in an article, readers are more strongly swayed by the descriptions of the exemplars in the article (Zillmann et al. 1996). This same pattern—journalistic coverage of the stories of particular individuals, rather than abstract statistics—has been previously noted in the polarization literature (Fiorina, Abrams, and Pope 2005, 30-32).

To enhance ecological validity, we told respondents that the article appeared in USA Today (in a debrief at the conclusion of the questionnaire, respondents were told that the article was written by the researchers, but was similar to articles that appeared in major national newspapers). The articles closely paralleled those that actually appeared in various publications in recent years (Thomma 2012; Horner 2012), so subjects should perceive them as realistic. Further, we also provided respondents with statistical information describing the country as either polarized or moderate in the treatment conditions (see Online Appendix 2). In the polarized article, we presented information on how Republicans and Democrats dramatically differed in their assessment of President Obama’s job performance. In the moderate article, we presented information about how Republicans and Democrats commonly desire bipartisanship among elected representatives.

Our treatment stimuli combine various features of mass media coverage of polarization into one “compound” treatment: issue extremity and distance between the parties, lack of
civility in discourse, disagreement and lack of compromise, and so forth. We did this because our goal in the experiment was twofold. First, we wanted our treatment stimuli to parallel real-world coverage of polarization, which typically combines these various features when discussing polarization. Second, given the difficulty in interpreting correlations between perceived polarization and issue extremity, we sought to design a stimulus that would exogenously increase false polarization so that we could measure its causal downstream consequences. Accordingly, we designed conditions that were strong enough to do this. Of course, one could have written the articles in different ways, emphasizing some particular aspect of polarization or moderation. We accept that we cannot disentangle individual aspects of polarized media coverage (e.g., we cannot parcel out the effect due to extreme issue positions vs. an unwillingness to compromise described in the articles). However, given that the real world does not typically isolate these individual features (but rather combines them under the rubric of “polarization”), we do not see this as a limitation but rather as a distinct question from the one we ask here.

Further, our treatment is arguably somewhat stronger than many such articles that appear in actual newspapers. It is, however, consistent with at least some coverage of polarization in the mass media, and subjects report they see this sort of polarized media coverage frequently (see below), implying a good deal of realism to the treatment. That said, however, we designed a strong treatment as we are the first study to examine false polarization experimentally, and wanted to be sure that we actually change perceptions of polarization. Future studies can explore more subtle variations on this treatment, but we wanted to first establish a baseline finding with our study.

The experiment was embedded within a survey administered over the Internet to a nationally representative probability sample of the U.S. population recruited via random digit dialing (RDD) and address-based sampling (ABS) methods. The survey was administered to 1,587 respondents by GfK/KN (these are the same data presented in Figure 1). The survey completion rate was 64.5% and the AAPOR cumulative response rate (CUMRR1) was 6.3%.
As one would expect with random assignment, distributions of pre-treatment covariates did not significantly differ across conditions (see Online Appendix 3). Subjects in GfK/KN’s KnowledgePanel complete surveys (such as ours) in exchange for various forms of compensation. Such data has been widely used throughout political science, and has been shown to be of extremely high quality (Chang and Krosnick 2009). Our data therefore have the benefits of both high internal validity (arising from random assignment in the experiment) as well as high ecological validity (our estimates generalize to the nation as a whole, unlike most convenience samples).

After reading the experimental stimulus, subjects were then asked a set of questions about the article, as well as a series of items to measure both issue-based and affective polarization. We first asked respondents “How often do you see these sorts of stories reported in the news?” (response options: “all of the time,” “often,” “sometimes,” “not too often,” “never”). The chi-square test of the contingency table between response to this question and treatment condition is highly significant ($\chi^2(8) = 175.94, p < .01$). 39.4% of respondents said that they saw the polarized article “all of the time” or “often” while only 9.0% said the same about the moderate article. Hence, consistent with the content analysis presented above, respondents perceive that the media discuss political polarization much more frequently than they discuss political moderation. Our article also seems to be somewhat typical of what people are exposed to in the real world.

We asked respondents to report their positions on immigration and capital gains tax rates, as well as their perceptions of the positions of the typical Democrat and Republican voter (exact question wordings for all items are given in Online Appendix 1). We also asked respondents for their opinions (and their perceptions of the opinion of the typical Democrat and Republican voter) on two other issues: public election financing and free trade.\textsuperscript{11} We chose moderately salient issues where subjects would have some prior opinions about the

\textsuperscript{11}Respondents were randomly assigned to either the question about public financing or free trade so that each respondent answered a total of three issue questions.
topics but where we might be able to find the effect of our treatments in an experimental setting. This is consistent with a long line of research using experiments to assess the effects of various stimuli on policy attitudes (e.g., Lupia and McCubbins 1998; Druckman, Peterson, and Slothuus 2013). Our findings still have implications for more prominent issues such as abortion and gay marriage as people are repeatedly treated with coverage of a polarized electorate in the real world, suggesting potentially powerful treatment effects even on issues where people have stronger and more stable attitudes. Finally, our results can help us understand how issues not currently on the national agenda may evolve to become politicized and polarized in the future (Bartels 1993).

The public financing and free trade issues contained a party cue, or the positions of the parties on these issues in recent years. We included these party cues to examine the robustness of the results to including party labels given the increased attention to these heuristics in the political science literature in recent years (Bullock 2011; Nicholson 2012; Druckman, Peterson, and Slothuus 2013). The party cues could either enhance or suppress the treatment effects—they may provide a guide for people to align their positions with the parties, or alternatively, they may overwhelm any effect of information about mass polarization.

Finally, we asked subjects three items measuring affective polarization, allowing us to test Hypothesis 4 (the items used here come from Iyengar, Sood, and Lelkes 2012). First, we asked respondents to provide their ratings of the other party on a standard 100-point feeling thermometer. Second, we asked them to independently list in text boxes up to six things they disliked about the other party.\footnote{A research assistant vetted each response to ensure that it was a legitimate dislike.} Expending effort to list an independent set of dislikes reveals antipathy toward the opposite party. Third, we asked them “How comfortable are you having close personal friends that are [Democrats/Republicans]?” on a three-point scale (target of evaluation was the opposite party; the item originally comes from Borgardus 1947).

We first test Hypothesis 2, which posits that reading the polarized article should increase
perceived polarization in the mass public, and therefore increase false polarization.\footnote{We present our results as graphics in the interest of simplicity. For readers who prefer to see results presented in tables, we present all the results as regression models in Online Appendix 5.} We operationalize perceived polarization as the absolute value of the difference between the perceived position of the typical Republican voter and the typical Democratic voter. In many ways, testing this hypothesis also functions as a manipulation check of the treatments.

\[\text{Figure 2 about here.}\]

The left panel in Figure 2 shows that those in the polarized condition perceive the highest levels of polarization between Democrats and Republicans across the four issues.\footnote{Here, and throughout the analysis, we restrict our analysis to partisans only, excluding leaners. We do this in order to more precisely bifurcate respondents into partisan categories. Pure Independents, which only comprise 3.7\% of the sample, were excluded. We also conducted all analyses including leaners, and obtain substantively and significantly similar results (see Online Appendix 4).} As illustrated in the right panel, we find that the difference between the polarized and moderate conditions is statistically significant on average across all issues.\footnote{We focus on comparisons between the polarized and moderate treatment conditions because this is the relevant theoretical comparison and because it is the most powered test. Readers interested in the comparing the effect sizes to the baseline control condition can consult the figures and appendix tables.} The polarized article increased perceived polarization by about 3.6\% compared to the moderate condition ($p = .06$). For each of the four individual estimates, the coefficient estimate is in the expected positive direction, indicating that reading about a divided electorate increased false polarization. The strongest treatment effects were for the capital gains taxes and immigration issues, with effect sizes of about 6\%.\footnote{Recall that for the public election financing and free trade items, we gave respondents a partisan cue by indicating the typical position of the parties on these issues. So it should not be terribly surprising that the treatment had the weakest effect on these issues: we told respondents where the parties stood, and they used this proximate cue, rather than the more distant one from the treatment.} This provides strong empirical support for our claim that press coverage depicting Americans as deeply politically divided increases perceived polarization in the public.
Does Media Coverage of Polarization Affect Issue Extremity?

We next test Hypothesis 3—that media coverage of polarization moderates respondents’ issue positions. We hypothesize that because individuals want to see themselves as centrist and willing to compromise, reading about polarized politics will cause them to react negatively to the article and move away from the polarized positions depicted therein. We operationalize attitude extremity by folding the seven-point issue scale into a four-point scale ranging from the most moderate position (1) to the most extreme position (4).

As shown in the right side of Figure 3, on average across issues, relative to those in the moderate condition, respondents in the polarized condition are 4.5% percent lower on the issue extremity scale \( (p = .016) \), or about 0.13 units on the four-point extremity measure. This represents nearly 20% of the standard deviation of the average issue scale. Generally, the results from the individual issues also exhibit a similar relationship.\(^{17}\) Two aspects of this finding stand out. First, these results highlight the importance of using an experimental design to assess the causal effects of perceived polarization. Those with the most extreme attitudes perceive the most polarization. If false polarization caused actual polarization, we should have seen that the polarized article (which increased perceived polarization) increased extremity. Instead, we found the exact opposite. The fact that the most extreme perceive the most polarization is most likely due to selection, consistent with the findings of Van Boven, Judd, and Sherman (2012), who argue that extremism leads people to view their fellow citizens as more divided. The media’s focus on mass polarization actually moderates the public’s issue positions even as it increases perceptions of polarization.

\(^{17}\)The exception is free trade, although the estimated positive effect on issue extremity is small and imprecise. Due to the imprecision of the estimate, we do not speculate on it in much detail, but one possibility is that free trade is a cross-cutting issue that does not cleanly fall on liberal-conservative lines given that prominent elites on both sides of political spectrum have been both proponents of free trade (Bill Clinton, George W. Bush) and opponents (Dick Gephardt, Pat Buchanan).
Does Media Coverage of Polarization Influence Affective Polarization?

According to Hypothesis 4, media coverage of polarization should increase dislike of the opposing party (i.e., affective polarization). As we explained above, this is a distinct from issue-based polarization; one can hold strong positions without disliking the other side (or vice-versa). As noted above, we measure affective polarization with: lower feeling thermometer ratings of the opposing party, more dislikes of them, and less comfort with them as close friends.

[Figure 4 about here.]

As shown in the right side of Figure 4, subjects in the polarized condition rated opposing partisans about 3.6 degrees lower on the feeling thermometer compared to those in the moderate condition \((p < .01)\). Additionally, they were 7% more likely to rate opposing partisans as a zero (the lowest possible value) on the feeling thermometer \((p = .02)\). Moreover, respondents in the polarized condition were about 0.11 units lower on the three-point item about comfort being friends than those in the moderate condition \((p = .032)\). Finally, people exposed to the polarized article listed 0.32 more dislikes of the other party when given the chance than those who read the moderate article \((p = .045)\). Thus, exposure to information describing the country as divided not only increases false polarization, but also leads people to feel more negatively toward the opposing party. While subjects moderate their issue positions, their evaluations of the other party become more polarized.

\(^{18}\)Because all the items are of different scale lengths, they have been recoded to lie between 0 and 1 for comparability. For the feeling thermometer, ‘1’ represents intense liking of the other party whereas for the other variables ‘1’ represents intense disliking. We normalize the feeling thermometer score by taking the natural log.
Heterogeneity of Treatment Effects

An immediate follow-up question after seeing the results above is who is driving the effects in our tests of Hypotheses 3 and 4—moderates or extremists? Examining how pre-treatment liberal-conservative ideology moderates the treatment effects is important for substantively interpreting the results. In Figure 5, we plot the treatment effect of the polarized article (relative to the moderate article) separately for: (1) respondents who reported as part of their panel interview that they identified as “extreme conservatives/liberals” or “conservatives/liberals” (whom we label extremists); and (2) respondents who identified as “weak conservatives/liberals” or “moderates” (whom we label “moderates”).

As shown on the leftmost side of Figure 5, false polarization increased among both extreme and moderate respondents in response to the polarized article. However, extreme respondents did not moderate their views as much as middle-of-the-road respondents in response to the treatment. The treatment effect is twice as large among moderates compared to extremists; further, while we can statistically distinguish the treatment effect of moderates from zero (0.15 units, \( p = .046 \)), we cannot do so for extremists (0.08 units, \( p = .30 \)). Therefore, media coverage of polarization is unlikely to substantively alter the overall shape of the ideological distribution in the mass public or to significantly change the level of issue polarization in the mass public. The moderation effect we find is relatively modest and is concentrated among those already likely to be centrist. Hence, the long-run implications of false polarization is not a nation of moderates, but rather an increased moderate core along with people at the extremes.

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19 We did not ask about issue positions pre-treatment because that might have induced consistency bias. Accordingly, we use pre-treatment ideology as the moderating variable of interest.

20 We do not have the statistical power to distinguish between moderates and extremists in this comparison. The goal here is simply to provide descriptive results of heterogeneity in the treatment effects based on pre-treatment ideology.
Conversely, for the affective polarization measures, both self-described extremists and moderates react to the polarized article by increasing their dislike toward the out party (see the righthand side of Figure 5). The effect sizes are extremely similar between ideological subgroups and the treatment effect can be distinguished from zero within each subgroup in nearly every case. Affective polarization, unlike issue polarization, increases throughout the electorate in response to polarized media coverage.

**Unpacking the Mechanisms**

We showed that media coverage depicting the electorate as polarized (relative to coverage depicting the electorate as moderate) increases perceptions of polarization, moderates issue positions, and increases negative affect toward the other party. We have so far discussed the causal effects of polarized media coverage but have not said much about the mechanisms underlying these effects. We employ two additional analyses to unpack the mechanisms: (1) a statistical mediation analysis of the GfK/KN data per Imai, Keele, and Yamamoto (2010) to show that perceived polarization is a mechanism through which the polarized article affects attitudes, and (2) a follow-up experiment to explore emotional responses as a mechanism through which the media coverage treatments operate (per the design-based mediation approach of Gerber and Green 2012). To be clear, all of the evidence we present here can only suggest a particular mechanism rather than definitively prove it (Bullock, Green, and Ha 2010). That said, we present these results as a buttress to our arguments above.

We first turn to the statistical mediation analysis. Above, we posit theoretically that media coverage of polarization generates false polarization, which in turn drives issue and affective polarization. Implicitly, this argument implies a causal pathway (media coverage → false polarization → issue/affective polarization). Above, we separately showed the effects of the treatment on both false polarization and issue/affective polarization, but we did not test the underlying causal pathway implied by our model. We do so now using mediation
We first examine our results from the test of Hypotheses 3. 27.2% of the negative treatment effect of the polarized treatment on issue extremity is mediated via increases in perceived polarization. The size of the indirect effect is statistically distinguishable from zero at conventional levels ($p = 0.08$). For the measures we used to test Hypothesis 4, we again find evidence that false polarization mediates the effect of polarized media coverage on affect toward the out party. For all of the measures except the uncomfortable being friends item, the mediational effect is at least marginally statistically significant. And again, with the exception of the friends item, between 10% (zero feeling thermometer rating) and 28.5% (dislikes of the other party) of the positive treatment effect of the polarized article is mediated via perceptions of polarization. Consistent with our theory, a substantial portion of the effect of media coverage on issue positions and attitudes toward the other party is transmitted via false polarization (for full results of the mediation analysis, see Online Appendix 6).

To further explore underlying mechanisms, we conducted another experiment in a follow-up study to understand why polarized media coverage reduces issue extremity but increases affective polarization. Earlier, we argued theoretically that depicting the country as polarized activates affective emotional responses. This should manifest itself in several distinct ways. First, respondents should associate the exemplars discussed in the polarized article with negative emotions such as anger, sadness, and hopelessness. Individuals who come across as polarized and partisan should not be viewed positively, especially compared to those that espouse compromise and consensus. Second, respondents should think that these polarized exemplars are less like them: they should see these individuals as extreme, divided, and unreasonable, while they see themselves moderate, independent-minded, and willing to compromise. Finally, respondents should also think the exemplars are more typical of ordinary Democrats and Republicans, who they perceive to be highly polarized (recall that the polarized article increases perceived and false polarization, see Figure 2). In sum, people will

\footnote{We employed the \texttt{R} package \texttt{mediation} developed by Imai et al. (2010).}
view extreme exemplars as less like themselves but more like typical partisans—this should decrease issue position extremity but increase dislike toward the out-party.

We test these predictions in a follow-up study\textsuperscript{22} where subjects were randomly assigned to read either the moderate or polarized article (the same ones used in the GfK/KN study; we did not include the control condition here in the interest of simplicity). Subjects then answered a series of questions about their self-reported emotional reactions to the people described in the articles, as well as their evaluations of how typical those people are as representatives of their party, and their similarity to the respondent’s own political dispositions (see Online Appendix 1 for full question wording). Given our expectations above, subjects in the polarized condition should report feeling more negative emotional reactions, think these individuals are more typical of the parties, and less like themselves politically.

[Figure 6 about here.]

As shown in Figure 6, subjects in the polarized condition report seeing both their own party’s exemplar and the opposing party’s exemplar more negatively; subjects in the polarized condition are made angrier, sadder, and less hopeful by both individuals. We averaged the three emotional items into a single index (reverse coding hopefulness so that it was positively correlated with both anger and sadness). Relative to the moderate condition, the polarized condition increased negative emotions towards the out-party exemplar by about 1.4 points (on the four-point scale), a substantively large effect ($p < .01$). The polarized condition also increased negative emotions towards the same-party exemplar by about 0.4 points ($p < .01$); the results are similar if we analyze each emotional self-report separately. While subjects respond negatively to both same-party and opposite-party exemplars, it is important to note that the effects are substantially larger for the opposite party. So while

\textsuperscript{22}We conducted this follow-up on Amazon’s Mechanical Turk using 206 respondents (see Online Appendix 1 for full question wordings). To be clear, this is a separate study than the one conducted using Mechanical Turk that is reported in Figure 1.
there is some dislike for both sides as a result of polarization, it is primarily concentrated toward the out party.

As the left hand panel of Figure 6 illustrates, the polarized article led people to see the individuals described in the articles as more typical of the parties (which they see as polarized). People rated the partisan exemplar 1.1 points higher as a typical Republican/Democrat on a four-point scale when evaluating the out-party exemplar ($p < .01$). The 0.5-unit effect is smaller for the same-party exemplar but still substantively large and significantly greater than zero ($p < .01$). The polarized article condition decreased perceptions that the exemplars were similar overall to the respondent (0.45 units on a 4-point scale, $p < .01$) and that they shared a similar political disposition (0.39 units on a 4-point scale ($p < .01$). This is consistent with our mechanistic argument: when subjects read the polarized article, they reject the extremity and discord depicted therein. As a result, affective polarization increases, largely by increasing negative attitudes toward the other party.

**Evidence Outside the Experimental Context**

The analysis above leverages an experimental context to provide support for our argument linking false polarization to attitudinal moderation and affective polarization. This has the significant strength of high internal validity: we know our experimental effects are due to our treatment. Further, the treatments enabled us to exogenously increase perceived polarization and measure its downstream consequences. As an additional check of our results, we analyze data from outside the experimental context to see if the evidence is consistent with the findings from the more controlled environment.

Due to space constraints, the details of the analysis can be found in Online Appendix 7. Briefly, we examine the effects of perceived polarization on affective polarization using the 2000 presidential election as a natural intervention, coupled with survey data from the 2000 and 2004 ANES Time Series studies. Via a difference-in-difference analysis, we show that the shift in media coverage toward describing the electorate as polarized following the 2000 elec-
tion reduced feeling thermometer scores of both the Republican and Democratic candidates for president, but the effect was especially large for the opposite-party candidate. This is highly consistent with our experimental results on affective polarization, which should help strengthen the readers’ confidence that our findings are not an artifact of our experimental design.

**Discussion and Implications**

This study is the first in political science to highlight the importance of *perceptions* of polarization. While there has been a vigorous debate about the levels and changes of polarization (Fiorina, Abrams, and Pope 2005; Abramowitz and Saunders 2008), no research has yet explored the consequences of perceptions of polarization, and the media’s role in describing the country as deeply divided along partisan lines. We find that while depictions of a divided electorate transmitted through the mass media can induce false polarization, individuals respond negatively to these depictions and moderate their positions on issues. Hence, even though extremists are actually the most likely to perceive high levels of polarization *a priori*, false polarization does not cause actual issue-based polarization. At the same time, false polarization does increase affective polarization, thereby increasing the potential for partisan discord.

We stress that our findings on perceived polarization are distinct from the more conventional findings about the level of polarization. That said, our results have implications for this literature. First, at the most basic level, we show that perceptions of polarization matter and are an important topic of study. In particular, there is a general tendency toward false polarization, which is important in and of itself. For example, if elites are subject to false polarization (and exaggerate mass polarization), then this can have important consequences for representation, as elites misunderstand the positions of their constituents (on this point more generally, see Broockman and Skovron 2013). This suggests a fruitful line of future inquiry about how these phenomena may feed back into elite perceptions.
Second, our findings about issue position extremity and affective polarization add a new wrinkle to the larger debate over polarization in the American mass public. On the one hand, we show in Figure 1 that the mass public is actually quite divided on some issues (though our cross-sectional study cannot say anything about changes over time). Yet we also show how media coverage can moderate the issue positions of those in the center even more, reinforcing the idea that some voters, especially those in the center, are “turned off” by depictions of polarized politics (Fiorina, Abrams, and Pope 2005). Our findings therefore suggest that the media likely are not shrinking mass polarization, as their moderating effects are centered on those who are already middle-of-the-road *ex ante*. Rather, the media help to further segment and stratify the electorate into a more moderate core turned off by polarization (as suggested by Fiorina, Abrams, and Pope 2005) and a more extreme segment (as suggested by Abramowitz 2011).

However, our results also make clear that polarized media coverage causes all citizens come to view the opposing party less positively. While we are not the first to describe and document affective polarization (Iyengar, Sood, and Lelkes 2012; Mason 2012), we are the first to show how media coverage exogenously increases it. Our findings offer one mechanism for explaining the increased discord and disagreement seen in contemporary American politics.

Finally, our findings also show the effects of media coverage of polarization, a topic that has received strikingly little attention despite concerns from Fiorina, Abrams, and Pope (2005) that the media has not been accurately depicting the American electorate. By presenting the public as deeply polarized, similar to political elites, the media shape ordinary Americans’ attitudes and their perceptions of politics more generally. Although false polarization is a basic cognitive phenomenon, media coverage exacerbates people’s views of the partisan divide, and has real—and politically important—consequences. While we may not expect our single treatment in the experiment to affect attitudes at a much later point in time, people are normally repeatedly exposed to polarized media coverage.
from multiple outlets. Subsequent research can explore over-time effects while examining the effects of multiple doses of these treatments.

Future studies can explore other sources of information about partisan polarization besides the media (Druckman, Peterson, and Slothuus 2013), or different types of media coverage (e.g., debate shows, many of which are characterized by incivility). Although we mainly focus on policy positions in the studies described here, a separate question is whether false polarization affects civic engagement and participation. As with negative advertisements (Ansolabehere and Iyengar 1995), it is possible that media coverage of polarization makes citizens more detached from and less trusting of the political system. Our findings serve as a key baseline and provide an impetus to explore additional effects of perceived polarization.

References


Horner, Emily. 2012. “Polarization in Politics May Not Be as Sharp as You Think.” *The HawkEye (Newspaper)* 4 November.


Figure 1: Evidence for False Polarization

In each panel, the thin black lines represent the extent of perceived polarization, the heavy black bars show the degree of actual polarization in the data, and the numbers on each line indicate the ratio of perceived to actual polarization.
Figure 2: Media Coverage of Mass Polarization Increases Perceived Polarization

The left panel shows the average level of perceived polarization on each issue by treatment condition, while the right panel shows the difference in perceived polarization between the polarized and moderate conditions (the dark circles are point estimates and the thin lines are 90% confidence intervals).
Figure 3: Media Coverage of Mass Polarization Moderates Issue Positions
The left panel shows the average level of issue extremity on each issue by treatment condition, while the right panel shows the difference in issue extremity between the polarized and moderate conditions (the dark circles are point estimates and the thin lines are 90% confidence intervals).
Figure 4: Media Coverage of Mass Polarization Increases Affective Polarization
The left panel shows the average level of perceived polarization on each issue by treatment condition, while the right panel shows the difference in perceived polarization between the polarized and moderate conditions (the dark circles are point estimates and the thin lines are 90% confidence intervals).
Figure 5: **Heterogeneity of Treatment Effects by Pre-Treatment Ideology**

The figure plots the difference between the polarized and moderate treatments for perceived polarization, issue extremity, and the affective polarization measures separately for extremist (“extreme conservatives/liberals” and “conservatives/liberals”) respondents and moderate (“weak conservatives/liberals” and “moderates”) respondents.
Figure 6: Perceiving Polarization Elicits Negative Emotional Reactions
The left panel shows the difference in respondents’ emotional reactions to the story exemplars between and polarized and moderate conditions. The right panel shows the difference between the polarized and moderate conditions in respondents’ assessments of how typical the story exemplars are of Republicans/Democrats and how similar they are to the respondent. The figures display point estimates and 90% confidence intervals.