

Subduing attitude polarization?

How partisan news may not affect attitude polarization for online publics

Eulàlia P. Abril, *University of Illinois at Chicago*

ABSTRACT. Researchers have sought to understand the effects of like-minded versus contrary news exposure on attitude polarization, which can be a threat to democracy. The online news environment offers opportunities for exposure to *both* types of news, albeit unequally. This study tests the effects of exposure to heterogeneous partisan news bundles (both like-minded and contrary news) on attitude polarization. Because media exposure can lead to bias, attitude polarization is tested as a direct *and* indirect effect via hostile media perceptions. Data in this study are from a between-subjects experimental design about the issue of assisted suicide. Results indicate that even though the effect of the partisan news bundle on hostile media perceptions is significant, both direct and indirect effects on attitude polarization are null.

Key words: Partisan news, attitude polarization, hostile media perceptions, online news, assisted suicide

We live in an increasingly polarized society.^{1,2} Many factors are feeding this tendency, although the media, in particular the partisan media, are often deemed responsible.^{3,4} Partisan media are understood as media that favor a political cause, party, or opinion,⁵ contrary to balanced news. Balanced news involves representing each point of view fairly. *Fairly* is loosely defined,⁶ but in practice, it involves devoting the same amount of space in a news article to each side of the issue, usually two.⁷ One type of partisan media is nontraditional online news.^{8,9,10,11} Nontraditional online news consists of ideologically charged or partisan information found online that does not follow conventional journalistic standards (e.g., the Huffington Post). Some researchers have viewed online partisan news as undesirable since it may lead to fragmented publics⁹ and polarization.^{9,12,13} Their concern is that attitude polarization — engaging in even more extreme attitudes than one's previously extreme attitudes — may endanger democracy by eclipsing the substance of policy arguments and increasing resistance to change among publics.¹⁴

However, online news users typically encounter more than one news article within an online experience, mostly two or more articles — what could be called a package, for instance, a webpage with different links to news articles.^{6,15,16,17} For instance, most online news comes from social media, and although most of the exposure is like-minded, users still have exposure to difference through family members, high school or college friends, and/or coworkers whom we may have in our networks. Cross-sectional data show that half of Facebook users get news while Facebooking; 78% of these individuals mostly see news when on Facebook for other reasons, and the range of topics and opinions is quite broad.¹⁸ Furthermore, big data from Facebook show that 24% of the (hard) news articles shared by friends of liberal account holders — and thus received by liberal individuals — were crosscutting (i.e., conservative). Similarly, for friends of conservative account holders, this percentage was 35% (i.e., liberal; see Bakshy, Messing, and Adamic). Evidence indicates that individuals exposed to a package of heterogeneous news (i.e., containing like-minded and contrary news articles) do not necessarily dismiss these contrary news articles, even if they stumble upon it.^{16,20,21} If contrary news is considered, what are the consequences of exposure to *both* like-minded and contrary news — that is, a heterogeneous bundle of news — on attitude polarization?

doi: 10.1017/pls.2017.11

Correspondence: Eulàlia P. Abril, University of Illinois at Chicago, 1007 W. Harrison St., 1152B BSB (MC 132), Chicago, IL 60607. Email: eulalia@uic.edu

While research has looked at the effects of exposure to biased information on polarization (or related media effects) in controlled experiments,^{13,22,23,24,25,26,27} unresolved issues remain. First, few studies have tested the effects of exposure to a bundle of news (i.e., more than one news article), let alone exposure to a *heterogeneous* bundle, which mimics the online news experience more closely. Leeper is an exception in that he had a heterogeneous bundle, but his experiment did not include a balanced news condition.¹⁶ Specifically, Leeper had separate pro and con environments in addition to an environment including pro and con articles. However, he lacked a balanced news condition with the same information. His control was a nonpolitical environment to control for exposure, so his manipulations are not exactly the same as what this study purports to test.

Second, it is less clear whether the effects on polarization also happen when there is a control group exposed to balanced news (following the North American and Anglo journalism tradition of objectivity, which includes balance; see Hallin and Mancini²⁸ and Ward⁵) that contains the *exact* same information — that is, testing the effect of internal balance or balance at the story level. Internal balance is the degree of balance among issue positions *within* one news article, while external balance is the degree of balance *among* news articles, so it is balance at the macro, story, or bundle level.⁶ To be clear, studies on polarization have not typically checked whether there was an effect of exposure to a heterogeneous bundle of *partisan* news compared with a bundle of *balanced* news.

Third, some of these studies used short arguments or statements as stimulus^{22,23,24} but not news. When studies used news, they were referred to as cable news^{13,25,26,27} or generic news stories,^{26,27} but mostly not online news, which is on the rise.²⁹ Finally, it is possible that the effect of exposure on polarization is indirect, especially through hostile media perceptions, as some studies suggest.^{13,30} Likely, focusing on partisan news that is overtly contrary to one's position and thus inducing hostile media perceptions¹³ may make acceptance to like-minded news more likely, which, in turn, could result in heightened attitude polarization.³⁰

This study seeks to test the effects of a heterogeneous partisan news bundle on attitude polarization controlling for external balance (i.e., balance of information at the bundle level, not at the news story level), using experimental data. In addition, study analyses distinguish whether the effects on attitude polarization are direct or indirect via hostile media perceptions, thus contributing

to understanding how attitude polarization may arise from media exposure. The issue considered is assisted suicide, which remains a polarizing issue.^{31,32,33} In addition, assisted suicide affects most democratic societies and is still unresolved.

Online news and hostile media perceptions

The online news environment offers individuals the possibility of far greater selection of information than legacy media. Most individuals self-select information or news that aligns with their own issue positions (i.e., selective exposure; for a review, see Cappella, Kim, and Albarracín³⁴). However, the online news environment also offers opportunities to stumble upon news that one would not select. Many online navigational techniques and affordances attest to this crosscutting exposure (for a review, see Garrett²¹ and Gil de Zúñiga *et al.*¹⁷), although it is not universal. Research also suggests that individuals do not always dismiss this “accidental” news. Brundidge²⁰ calls this phenomenon the *inadvertency thesis*; Garrett²¹ terms it *opinion challenge*.

Examining the effects of this crosscutting exposure on attitude polarization requires an understanding of processing biases. Among the indirect processing biases originating from news exposure and that studies have found to spur polarization is the hostile media phenomenon.³⁰

The hostile media phenomenon is the tendency for partisans or strong attitude holders to see balanced news as biased against their own side of an issue.³⁰ Exposure to balanced news causes partisans to focus on contrary information in the news, which leads to considering the news article as contrary to one's position — carrying consequences such as attitude polarization. But the hostile media phenomenon also takes place with exposure to *partisan* news — the so-called *relative hostile media perception*.^{31,35} The relative hostile media perception is “the perception of relatively disagreeable media coverage by people on different sides of an issue” (p. 190).³¹

Further, what are the effects on hostile media perceptions if, instead of one news story, individuals are exposed to a heterogeneous bundle of news — a more likely scenario in the online news media environment?^{6,15,16,19} If the hostile media perceptions can arise from balanced and partisan news, what are the effects of exposure to a *heterogeneous* bundle of partisan news, and, more importantly, do hostile media effects translate into attitude polarization for

individuals — whether they have strong issue positions or not?

Findings by Fico and colleagues show that the more partisan news stories become, the more bias is reported by readers.³⁶ Their study did contain a bundle of news, and each article had a different internal balance and/or story valence, but each article referred to a different topic, making control at the story level (external balance) difficult. In that case, participants were exposed to arguments regarding different stories (participants each read one pro, one con, and one neutral story from the three topics treated). Although their study closely mimicked the printed news media experience, the lack of control at the macro level triggers questions about the actual effects of partisan news bundles (since there was no bundle that was only partisan).

Gunther and Christen's³⁷ study followed a similar design, with participants reading one article for each topic, so not controlling for the macro level either. Levels of influence, though, are key forces in media effects.³⁸ As a result of not controlling for levels of influence, is it argument strength or exposure to partisan news that drives the effects? Moreover, these studies consisted of administering print news. It is more likely to stumble upon a heterogeneous bundle of partisan news in online media than it is in print media, giving less credence to these scenarios with print media. Other studies testing the effects of written partisan news or slanted information consisted mainly of just one story per condition (e.g., Feldman²⁷).

The findings point toward partisan news eliciting a relatively stronger hostile media effect than balanced news, but it remains to be tested against a controlled condition of balanced news (one that is equivalent at the bundle level) to be sure the effects are due to fairness. It is likely that news bundles that are partisan, even if presenting both partisan sides in two separate articles, elicit more hostile media perceptions than articles that are completely balanced on their own. The first hypothesis purports to test precisely this.

H1a: Exposure to a heterogeneous partisan news bundle will lead to more hostile media perceptions than exposure to a balanced news bundle.

Because the hostile media effect occurs among partisans, but typically not among moderates,³⁰ strong attitude holders are therefore expected to experience more hostile perceptions than moderates. The following hypothesis is proposed:

H1b: Strong supporters will experience more hostile media perceptions than moderates.

Attitude polarization

Early research showed that strong attitude holders are susceptible to disregarding information that runs contrary to their attitude and confirming information that is aligned with it, with the result that their strong attitudes may become stronger²⁴ — that is, polarized. When strong attitude holders are exposed to partisan news, this very effect should be expected. With partisan news, the selective exposure that triggers polarization^{9,39,40} would exacerbate existing divisions between partisans from different sides.⁴¹

However, evidence of the inadvertency thesis²⁰ and the regard for contrary news^{17,21} implies that the undesirable effects of partisan news may become subdued when crosscutting information is taken into account.²⁶ This hypothesis runs parallel to the argument some scholars advance that partisan news plays a crucial role in democracy by encouraging a political discourse that is more vibrant, critical, and engaged.^{6,42}

Since evidence of the effects of exposure to a bundle of *heterogeneous* partisan news on attitude polarization has not been tested with a true control group (a bundle of balanced news with the same information), this remains an open question. Therefore, the following research question is advanced to look for a direct effect.

RQ1: Will exposure to a heterogeneous partisan news bundle lead to more attitude polarization than exposure to a balanced news bundle?

There is evidence that polarization is higher among partisans compared with nonpartisans.²⁶ This is because partisans are more reactive to contrary news than nonpartisans. So, if there is a polarization effect because of media exposure, strong attitude holders will experience more polarization than moderates. A hypothesis is posed:

H2: Strong supporters will experience more attitude polarization than moderates.

Finally, to assess the possibility that polarization may be a mediated effect, a model of media influence⁴³ leading to attitude polarization was formulated. The idea is that exposure to partisan news that is overtly contrary to one's position ignites hostile media perceptions, which may make reliance on like-minded news more likely. This reliance, in turn, could result in heightened

attitude polarization.³⁰ That is, contrary news weighs heavier than like-minded news. But an argument could also be made that individuals are most attracted to like-minded information, thus directly leading to polarization among strong supporters of assisted suicide. This latter consideration would imply no mediation via hostile media perceptions. Because the mediation model has been hinted at³⁰ but not directly tested, and because an argument could be made that mediation may not take place, the relationship is proposed as a research question.

RQ2: Will hostile media perceptions mediate the effect of a heterogeneous partisan news bundle on attitude polarization?

Methods

Study design

The present study consists of a between-subjects experiment with two conditions (partisan and balanced news bundles) embedded in a web survey with pre- and post-test questions. Question order was randomized to avoid order effects, but with the pre- and post-test questions always remaining pre- and post-test questions, respectively. Assignment to the conditions was random. Study participants were contacted using class Listservs via an email that contained the URL for the study. The stimuli consisted of news article bundles (heterogeneous partisan news versus balanced news bundles; two articles in each bundle). The researcher obtained informed consent online. Instructions recommended that participants complete the study in one sitting intended to require approximately 30 minutes. The study was pilot-tested before actual fieldwork.

Sample

The sample consisted of collegiate participants ($N = 409$; age: $M = 22.48$ years, $SD = 6.99$; gender: 66% female). This choice was deemed appropriate because collegiate participants' online presence is much higher than any other age group. For instance, 93% of 18- to 29-year-olds were online in the United States compared with 74% among all adults.⁴⁴ Thus, exposing participants to online news seemed more typical and common for this age group. Other research in this area has also employed collegiate samples (see Lord, Ross, and Lepper²⁴; Taber and Cann²³; and Taber and Lodge²²).

The pilot study indicated that assisted suicide was a topic that collegiate participants cared about, and

pre-test study results showed that on a scale from 0 (not at all) to 6 (very much), participants felt the issue of assisted suicide (assisting someone to die and having the right to be disconnected) was rather important to them ($M = 4.37$, $SD = 1.13$; $r = 0.34$), and perceived themselves to have quite a bit of knowledge about it ($M = 3.42$, $SD = 1.30$; $r = 0.55$).

The collegiate sample was diverse. Participants were recruited from a wide variety of majors, including communication, journalism, nursing, psychology, economics, business, consumer science, family studies, English, history, education, math, and social work, to name the most represented from a large midwestern university.

In keeping with tradition, the sample was split into moderates and strong supporters/detractors of assisted suicide using the following formula: each (pre-test) attitude item was multiplied by the strength of that attitude, and then the square root was taken to rescale.^{45,46,47,48} A new variable assessing (pre-test) attitudes about assisted suicide by their strength was created ($M = 4.05$, $SD = 1.34$; $r = 0.40$) on a scale from 0 (strongly against) to 6 (strongly in favor). The distribution exhibited negative skewness ($M = -0.72$, $SD = 0.12$; $p < 0.001$) but not kurtosis ($M = 0.52$, $SD = 0.24$, n.s.). This implies that there were more supporters than detractors in the sample. The distribution was split into three groups using the original scale thresholds. Strong supporters were those with pre-test attitude scores higher than or equal to five ($n = 109$). Detractors were those with pre-test attitude scores lower than or equal to 1 ($n = 12$). The rest were all considered moderates ($n = 288$). Because there were very few detractors, to have any power in our tests, they were excluded from subsequent analyses, resulting in a sample of 397 participants.

The issue of assisted suicide

Assisted suicide was chosen as the topic for this study for a variety of reasons. First, among nine controversial topics, assisted suicide was the issue closest to normality during pilot-testing. Second, assisted suicide was confirmed to be of interest to study participants at pre-test. Third, assisted suicide is a controversial issue in the United States.^{33,49,50,51,52,53} The news media have played a crucial role in stirring and shaping public opinion about the issue of assisted suicide (see "assisted suicide" in the *New York Times* topics: <http://www.nytimes.com/pages/topics>). Fourth, assisted suicide has been used in other studies dealing with processing biases,^{31,54}

Table 1. Differences across groups before experimental treatment.

Variables	Partisan	<i>n</i>	Balanced	<i>n</i>	α	<i>r</i>	<i>p</i> -value
Age	23.15	190	21.88	207			0.08
Gender (female)	66.2%	190	65.1%	207			0.99
Ideology	2.51	190	2.27	207		0.60	0.10
Media use	2.76	190	2.91	207		0.51	0.16
Self-censorship [†]	2.75	190	2.78	207	0.82		0.80
Political talk (frequency)	2.53	190	2.56	207	0.64		0.73
Political talk (heterogeneity)	3.42	190	3.52	207	0.62		0.42
Issue importance	4.38	190	4.33	207		0.34	0.66
Issue knowledge	3.42	190	3.41	207		0.55	0.95

Notes: All variables except age and gender were asked before the experimental manipulation. Tests are two-tail *t*-tests except for gender (nonparametric). *r* is reported for variables with two items, Cronbach's α , for variables with three or more items. [†]66 *N* = 397.

precisely as a controversial topic. Finally, assisted suicide is an issue that most democratic countries have debated fiercely in recent years and that remains unresolved.

Experimental stimulus: News bundles

The partisan articles were chosen from a set of articles generated by a LexisNexis search using the key words “assisted suicide” or “euthanasia.” To create the partisan condition, one article in favor of and one article against assisted suicide were chosen from the set. The pro-assisted suicide article appealed to notions of free choice and the right to stop suffering. The article against assisted suicide maintained that it was a religious sin and that no one should play God. Both articles were regular newspaper articles (i.e., not editorials).

To create the balanced condition, all paragraphs from the two partisan articles were mixed together and then split into two *new* (balanced) articles. The paragraphs were moved around to create a logical argument, and then transitions were added or changed to make the argument flow. Thus, in essence, both bundles of articles (the partisan condition with two partisan articles, and the balanced condition with two balanced articles) were equivalent but packaged differently. In fact, in terms of external balance, the two news conditions had the same external balance. However, the articles differed from condition to condition in terms of internal balance.

The articles were presented as (plain text) online news articles, each on a different screen, one after the other, and without reference to publication venue or authorship (participants were informed that venue and authorship were left out for study purposes). The order of appearance of each of the two articles in every condition was random to control for order effects. The titles

of the partisan articles were as follows: “The Government [then the Barack Obama administration] Plans to Regulate Assisted Suicide this Term: It’s Time to Accept Assisted Suicide” (498 words) and “Conservatives [then the Republican opposition] Say That Assisted Suicide Is ‘Slaying’ People Using Public Funds” (537 words). For the balanced articles, the titles were as follows: “The Debate over Assisted Suicide Has Reignited Again” (468 words) and “Notes on Assisted Suicide” (563 words). Table 1 shows that random assignment to the two conditions was evenly split and produced two equivalent groups.

Measurement

Unless otherwise indicated, all measures in this article are on a scale from 0 (strongly disagree) to 6 (strongly agree).

Attitude polarization was measured using attitude change: pre- and post-test attitudes related to assisted suicide — the so-called actual polarization.⁵⁵ Comparing pre- and post-test measures is the gold standard in studies examining attitude change in the context of media effects and polarization.^{23,26}

The pre-test questions were related to assisted suicide as a right and the right to be disconnected from life-sustaining equipment when unable to do so oneself ($M = 4.34$, $SD = 1.26$, $r = 0.36$). The precise wording was, “A patient suffering from a terminal or severe chronic disease should have the right to an assisted suicide (having a third person assist oneself in terminating one’s life)” and “Patients in assisted living, who have expressed their desire not to be connected to machines to keep them alive, should have the right to be disconnected.”

The post-test questions were related to assisted suicide as a right, how assisted suicide is a homicide

Subduing attitude polarization

(reversed), and the denial of assisted suicide as torture ($M = 3.64$, $SD = 1.45$, Cronbach's $\alpha = 0.80$). The precise wording was, "Assisted suicide is every citizen's right," "Assisting somebody to kill himself/herself is a homicide," and "When a person is suffering and there is no cure, denying someone the right to die in dignity is torture." Although the two measures (pre- and post-test) are not identical, they convey the same meaning ($r = 0.73$, $p < 0.001$). Researchers have used non-exact pre- and post-test comparisons to avoid participants' ability to peruse previous answers in their short-term memory.⁵⁶

To capture attitude polarization — the phenomenon of attitudes becoming more extreme among already extreme attitude holders — the following formula was used based on Wojcieszak (2011): among strong supporters (i.e., pre-test attitudes ≥ 5), if the post-test attitude was strictly larger, then polarization took a value of 1 (attitude polarization = 3.2% among strong supporters). Otherwise, polarization took a value of zero. Among moderates (i.e., pre-test attitudes >2 but <5), if the post-test attitude was higher and greater than 5, then polarization took a value of 1 (attitude polarization = 1.0% among moderates). Otherwise, polarization took a value of zero.

Hostile media perceptions was measured on a Likert scale with four items that specifically tackled hostility, conflict, support, and consistency ($M = 2.75$, $SD = 1.00$, Cronbach's $\alpha = 0.82$). The precise wording was: The news stories you just read were. . . "Hostile to my stand on the issue of assisted suicide," "Conflicting with my values concerning the issue of assisted suicide," "Supportive of my point of view on the issue of assisted suicide" (reversed), and "Consistent with my view on the issue of assisted suicide" (reversed). Accordingly, the measure for hostile media perceptions is richer than the typical measures used in similar research, in which only unfavorability⁵⁷ or bias and unfavorability⁵⁸ are considered.

Analysis consisted of two-way ANOVAs with type of participant (moderates versus strong supporters) and news bundle (heterogeneous partisan versus balanced news bundles) as factors. To test for indirect effects, a path analysis model was built based on Gunther and colleagues^{35,59} and tested using bootstrap analytical techniques.⁶⁰ The path model was run to account for group effects, that is, keeping strong attitude holders and moderates separate within the model. The following variables were tested to see whether they were covariates to the relationships posed here: age, ideology,

Table 2. Means for the outcome variables across internal balance and supporter group (strong supporters versus moderates).

Outcome	News bundle	Mean	Group	Mean	<i>n</i>
Hostile media	Partisan	2.90	Supporters	2.64	59
			Moderates	3.01	131
	Balanced	2.62	Supporters	2.12	50
			Moderates	2.78	157
	Total	2.75	Supporters	2.40	109
			Moderates	2.88	288
Attitude polarization	Partisan	3.1%	Supporters	5.1%	59
			Moderates	2.2%	131
	Balanced	2.4%	Supporters	8.0%	50
			Moderates	0.6%	157
	Total	2.8%	Supporters	6.4%	109
			Moderates	1.4%	288

$N = 397$.

media use, self-censorship, political talk (frequency), political talk (heterogeneity), issue importance, and issue knowledge. None of these variables met the assumptions to become a covariate,⁶¹ and so they were not used. An analysis of this claim can be found in Appendix A online.

Results

A manipulation check indicated that participants effectively identified whether the news bundles had articles with partisan news versus balanced news. This was tested with the semantic-differential item "Now, let's recap. Would you say the news stories you just read are: unbalanced-balanced?" Responses were on a scale from 0 (unbalanced) to 6 (balanced). A t -test indicated that participants exposed to the partisan news bundle condition ($M = 2.61$, $SD = 1.39$) perceived the news stories to be significantly more unbalanced than participants in the balanced news bundle condition ($M = 3.19$, $SD = 1.30$; $p < 0.001$). The balance differentiation of the news bundle manipulation (partisan and balanced news bundles) was thus effective.

Table 2 provides the descriptive statistics for all dependent variables across news bundle condition. Participants exposed to the partisan news bundle condition experienced significantly *more* hostile media perceptions ($M = 2.90$, $SD = 0.98$) than participants who were exposed to the balanced news bundle condition ($M = 2.62$, $SD = 1.00$), $F(1, 393) = 12.20$, $p < 0.001$, (partial) $\eta^2 = 0.03$. This supported *H1a*. Strong supporters did not experience *more* hostile media perceptions ($M = 2.40$, $SD = 1.15$) than moderates ($M = 2.88$, $SD = 0.90$),

n.s., thus not finding support for *H1b*. See Appendix B online for the full ANOVA model.

In terms of polarization, participants who were exposed to partisan news stories *did not* experience more attitude polarization (3.1%) than participants exposed to balanced news stories (2.4%), n.s. Hence, the first research question could not be answered. Yet strong supporters experienced significantly *more* attitude polarization (6.4%) than moderates (1.4%), $F(1, 393) = 7.71, p < 0.01$, (partial) $\eta^2 = 0.02$. This result provided support for *H2*. See Appendix C online for the full ANOVA model.

Using the bootstrapping technique to formally test the mediation question (*RQ2*), results indicated that there was no mediation in the model. Specifically, the hypothesized effects found in the model, that is, from partisan news to attitude polarization through hostile media influence, was zero by a 95% bootstrap confidence interval based on 5,000 bootstrap samples (−0.052 to 0.008, with a point estimate of −0.022 for strong attitude holders; −0.007 to 0.007, with a point estimate of 0.000 for moderates). The model had a good fit. The likelihood ratio test was nonsignificant ($\chi^2 = 1.46$, n.s.). Likewise, CFI = 1.00, and TLI = 1.15 indicated a good fit. The RMSEA = 0.00 also indicated a very good fit. Thus, mediation was not supported. See Appendix D online for the path analysis model.

Discussion

This study sought to examine the effects of exposure to a heterogeneous partisan news bundle on attitude polarization, both directly and indirectly through hostile media perceptions. Study results from experimental data point to partisan news leading to hostile media perceptions but not to attitude polarization. Specifically, exposure to a bundle of heterogeneous partisan news led to more hostile media perceptions compared to exposure to a bundle of balanced news. The findings regarding hostile media perception are analogous to recent studies, especially the ones conducted within online environments.⁶² However, the effects on polarization directly or indirectly (measured through bootstrapping) resulted in null effects. Strong attitude holders did experience more polarization than moderates, but that was irrespective of bundle exposure.

Earlier results on the effects of slanted information on polarization^{22,23,24} hinted that it really did not matter whether the information given was partisan or balanced; polarization was to be expected among strong

attitude holders.²³ In a way, our results are parallel in that there were no differences in attitude polarization between the partisan and the balanced news condition. Perhaps how the news is packaged is secondary to exposure itself. Future research will have to examine single versus multiple articles and dosage of partisanship in order to dig deeper into this question. Also, recent findings point to the strength of individuals' previous attitudes as the driver of polarization, though media effects are present as well.¹⁶ Only a study with enough conditions to disentangle these effects may ultimately assess the effects on polarization from partisan news.

Wojcieszak and Rojas⁶³ found no evidence of polarization in the online environment, but their data were cross-sectional. Still, their results may, after all, point in the direction of crosscutting exposure as the inoculation agent against polarization for online news consumers. Along the same lines, Feldman found that participants in her experimental study were persuaded by the valence of the article they were exposed to.²⁶ So, she found persuasion but not polarization.

Although the results here are encouraging, a few limitations must be noted. Because the sample was convenient, generalization at the population level is not possible, not even at the collegiate population level. Future studies will have to tackle this issue using a representative sample. Likewise, it is possible that the null effect on attitude polarization is a result of the issue of assisted suicide. Additional controversial issues will have to be included in future research to ensure the effects are not constrained to certain topics — even though similar results have been obtained with different issues.^{26,63} Also, it remains to be tested whether news bundles with external balance would have the same effect as exposure using conditions that contain different external balance (with one or several news articles and controlling for previous attitudes) since the measures in this study are limited to news bundles with the same external balance. Similarly, since political talk is crucial to news dissemination and attitude formation,⁶⁴ this should be included in future analyses.

Finally, it is possible that the artificial scale distinction between moderate and strong supporters of assisted suicide may have been insufficient to produce significant effects on attitude polarization — in particular, given the low statistical power of these subgroups because of their small size. The split used has been previously validated when sampling from non-extremist groups.^{23,26,55} Studies that select participants directly from moderate and strong membership venues

(e.g., members of a right to die group) would probably be better equipped to detect these effects.

This study contributes to understanding the effects of online partisan news bundles. The news articles used came precisely from online news outlets and were bundled in the way that, plausibly, online audiences view news. Results add to the growing call for more theoretical insight into the structure and consequences of partisan news. Gunther and Chia³⁵ have called for an integrated theory that simultaneously considers an array of related effects like the ones tested in this study. In addition to hostile media perceptions, this study also suggests that attitude polarization (directly and indirectly) ought to be considered in the ensemble of effects, even though the effects on polarization were null here. Participants exposed to a heterogeneous bundle of partisan news experienced polarization no differently than participants exposed to a bundle of balanced news.

Two understandings emerge from this study. First, we need to encourage mechanisms that offer crosscutting exposure to news in the online environment. News that is free or affordable and public social media such as Twitter are key to exposing individuals to multiple sides of an issue.⁶⁵ Second, while a partisan news bundle does not seem to affect polarization, exposure to the news itself does increase polarization among strong supporters, which is a result also found by Leeper.¹⁶ Additional mechanisms to buffer the effects for partisans are thus warranted.

References

1. J. Westfall, L. Van Boven, J. R. Chambers, and C. M. Judd, "Perceiving political polarization in the United States: Party identity strength and attitude extremity exacerbate the perceived partisan divide," *Perspectives on Psychological Science*, 2016, 10(2): 145–158.
2. A. Abramowitz, "The electoral roots of America's dysfunctional government," *Presidential Studies Quarterly*, 2013, 43(4): 709–731.
3. M. Wojcieszak, B. Bimber, L. Feldman, and N. J. Stroud, "Partisan news and political participation: Exploring mediated relationships," *Political Communication*, 2015, 33(2): 241–260.
4. N. J. Stroud, "Polarization and partisan selective exposure," *Journal of Communication*, 2010, 60(3): 556–576.
5. S. J. A. Ward, *The Invention of Journalism Ethics: The Path to Objectivity and Beyond* (Kingston: McGill-Queen's University Press, 2004).
6. E. P. Abril, "Can partisan news be valuable for discussion? An analysis of the effects of internal balance on online discussion intention," *International Journal of Communication*, 2015, 9: 1029–1051, <http://ijoc.org/index.php/ijoc/article/view/2319/1353>, accessed January 31, 2018.
7. M. Schudson, *Discovering the News* (New York: Basic Books, 1978).
8. F. Sesno, "Talking it out: A conversation with George Stephanopoulos on politics, the media, and the art of interviewing," *International Journal Press/Politics*, 2008, 13(3): 310–318.
9. C. R. Sunstein, *Republic.com 2.0* (Princeton, NJ: Princeton University Press, 2007).
10. M. Tremayne, N. Zheng, J. Kook Lee, and J. Jeong, "Issue publics on the web: Applying network theory to the war blogosphere," *Journal of Computer-Mediated Communication*, 2006, 12(1): 290–310.
11. J. Brundidge, R. K. Garrett, H. Rojas, and H. Gil de Zúñiga, "Political participation and ideological news online: 'Differential gains' and 'differential losses' in a presidential election cycle," *Mass Communication & Society*, 2014, 17(4): 464–486.
12. M. Wojcieszak, "'Don't talk to me': Effects of ideologically homogeneous online groups and politically dissimilar offline ties on extremism," *New Media & Society*, 2010, 12(4): 637–655.
13. S. Iyengar and K. S. Hahn, "Red media, blue media: Evidence of ideological selectivity in media use," *Journal of Communication*, 2009, 59(1): 19–39.
14. Y. M. Kim, M. Wang, M. R. Gotlieb, I. Gabay, and S. Edgerly, "Ambivalence reduction and polarization in the campaign information environment: The interaction between individual- and contextual-level influences," *Communication Research*, 2013, 40(3): 388–416.
15. K. McIntyre, S. R. Barnes, and L. Ruel, "The effects of online news package structure on attitude, attention, and comprehension," *Electronic News*, 2016, 10(3): 178–193.
16. T. J. Leeper, "The informational basis for mass polarization," *Public Opinion Quarterly*, 2014, 78(1): 27–46.
17. H. Gil de Zúñiga, B. Weeks, and A. Ardèvol-Abreu, "Effects of the news-finds-me perception in communication: Social media use implications for news seeking and learning about politics," *Journal of Computer-Mediated Communication*, 22(3): 105–123.

18. Pew Research Center, "The modern news consumer: News attitudes and practices in the digital era," July 2016, <http://www.journalism.org/2016/07/07/the-modern-news-consumer/>, accessed January 31, 2018.
19. E. Bakshy, S. Messing, and L. A. Adamic, "Exposure to ideologically diverse news and opinion on Facebook," *Science*, 2015, 348(6239): 1130–1132.
20. J. Brundidge, "Encountering 'difference' in the contemporary public sphere: The contribution of the Internet to the heterogeneity of political discussion networks," *Journal of Communication*, 2010, 60(4): 680–700.
21. R. K. Garrett, "Echo chambers online? Politically motivated selective exposure among Internet news users," *Journal of Computer-Mediated Communication*, 2009, 14(2): 265–285.
22. C. S. Taber and M. Lodge, "Motivated skepticism in the evaluation of political beliefs," *American Journal of Political Science*, 2006, 50(3): 755–769.
23. C. S. Taber and D. Cann, "The motivated processing of political arguments," *Political Behavior*, 2009, 31(2): 137–155.
24. C. G. Lord, L. Ross, and M. R. Lepper, "Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence," *Journal of Personality and Social Psychology*, 1979, 37(11): 2098–2109.
25. K. Coe, D. Tewksbury, and B. J. Bond *et al.*, "Hostile news: Partisan use and perceptions of cable news programming," *Journal of Communication*, 2008, 58(2): 201–219.
26. L. Feldman, "The opinion factor: The Effects of opinionated news on information processing and attitude change," *Political Communication*, 2011, 28(2): 163–181.
27. L. Feldman, "Partisan differences in opinionated news perceptions: A test of the hostile media effect," *Political Behavior*, 2011, 33(3): 407–432.
28. D. C. Hallin and P. Mancini, *Comparing Media Systems: Three Models of Media and Politics* (New York: Cambridge University Press, 2004).
29. A. Mitchell and D. Page, *State of the News Media 2015* (Washington, DC: Pew Research Center, 2015).
30. R. P. Vallone, L. Ross, and M. R. Lepper, "The hostile media phenomenon: Biased perception and perceptions of media bias in coverage of the Beirut massacre," *Journal of Personality and Social Psychology*, 1985, 49(3): 577–585.
31. A. C. Gunther and C. T. Christen, "Projection or persuasive press? Contrary effects of personal opinion and perceived news coverage on estimates of public opinion," *Journal of Communication*, 2002, 52(1): 177–195.
32. J. Strate, T. Kiska, and M. Zalman, "Who favors legalizing physician-assisted suicide? The vote on Michigan's Proposal B," *Politics and the Life Sciences*, 2001, 20(2): 155–163.
33. A. G. Svenson, "Montana's courting of physician aid in dying, Could Des Moines follow suit?," *Politics and the Life Sciences*, 2010, 29(2): 55–72.
34. J. N. Cappella, H. S. Kim, and D. Albarracín, "Selection and transmission processes for information in the emerging media environment: Psychological motives and message characteristics," *Media Psychology*, 2014, 18(3): 396–424.
35. A. C. Gunther, C. T. Christen, J. L. Liebhart, and S. C.-Y. Chia, "Congenial public, contrary press, and biased estimates of the climate of opinion," *Public Opinion Quarterly*, 2001, 65(3): 295–320.
36. F. Fico, J. D. Richardson, and S. M. Edwards, "Influence of story structure on perceived story bias and news organization credibility," *Mass Communication & Society*, 2004, 7(3): 301–318.
37. A. C. Gunther and C. T. Christen, "Effects of news slant and base rate information on perceived public opinion," *Journalism & Mass Communication Quarterly*, 1999, 76(2): 277–292.
38. E. P. Abril and H. Rojas, "Silencing political opinions: An assessment of the influence of geopolitical contexts in Colombia," *Communication Research*, 45(1): 55–82.
39. T. J. Johnson and B. K. Kaye, "The dark side of the boon? Credibility, selective exposure and the proliferation of online sources of political information," *Computers in Human Behavior*, 2013, 29(4): 1862–1871.
40. M. D. Conover, J. Ratkiewicz, M. Francisco, B. Gonc, A. Flammini, and F. Menczer, "Political polarization on Twitter," in *Proceedings of the 25th Conference of the Association for the Advancement of Artificial Intelligence* (Menlo Park, CA: AAAI Press, 2011).
41. G. C. Jacobson, *A Divider, Not a Uniter: George W. Bush and the American People* (New York: Pearson Longman, 2007).
42. K. H. Jamieson, B. W. Hardy, and D. Romer, "The effectiveness of the press in serving the needs of American democracy," in *A Republic Divided* (New York: Oxford University Press, 2007), pp. 21–51.
43. H. Rojas, M. Barnidge, and E. P. Abril, "Egocentric publics and corrective action," *Communication and the Public*, 2016, 1(1): 27–38.

Subduing attitude polarization

44. A. Lenhart, K. Purcell, A. Smith, and K. Zickuhr, *Social Media and Young Adults* (Washington, DC: Pew Internet Research, 2010), <http://www.pewinternet.org/2010/02/03/social-media-and-young-adults/>, accessed January 31, 2018.
45. R. Tamborini, R. Weber, A. Eden, N. D. Bowman, and M. Grizzard, "Repeated exposure to daytime soap opera and shifts in moral judgment toward social convention," *Journal of Broadcasting & Electronic Media*, 2010, 54(4): 621–640.
46. D. Morisi, Shaping voting intentions: An experimental study on the role of information in the Scottish independence referendum, Robert Schuman Centre for Advanced Studies Research Paper No. RSCAS 2014/88, September 2014.
47. R. J. La Raja and D. L. Wiltse, "Don't blame donors for ideological polarization of political parties," *American Politics Research*, 2012, 40(3): 501–530.
48. G. Layman, T. Carsey, J. Green, and R. Herrera, Party polarization and 'conflict extension' in American politics: The case of party activists, paper presented at the American Politics Workshop (Department of Government and Politics, University of Maryland, College Park, MD, 2005), <http://cite.seerx.ist.psu.edu/viewdoc/download?doi=10.1.1.536.2163&rep=rep1&type=pdf>, accessed January 31, 2018.
49. S. J. Ziegler and R. A. Jackson, "Who's not afraid of Proposal B? An analysis of exit-poll data from Michigan's vote on physician-assisted suicide," *Politics and the Life Sciences*, 2005, 23(1): 42–48.
50. I. R. Byock, Y. J. Corbeil, and M. E. Goodrich, "Beyond polarization, public preferences suggest policy opportunities to address aging, dying, and family caregiving," *American Journal of Hospice & Palliative Medicine*, 2009, 26(3): 200–208.
51. K. J. Holody, Framing Death: The Use of Frames in Newspaper Coverage of and Press Releases about Death with Dignity. M.Sc. thesis (Virginia Polytechnic Institute and State University, 2006).
52. J. A. Pollock and S. G. Yulis, "Nationwide newspaper coverage of physician-assisted suicide: A community structure approach," *Journal of Health Communication*, 2004, 9(4): 281–307.
53. R. Weir, *Abating treatment with critically ill patients: ethical and legal limits to the medical prolongation of life* (New York: Oxford University Press, 1989).
54. C. T. Christen and A. C. Gunther, "The influence of mass media and other culprits on the projection of personal opinion," *Communication Research*, 2003, 30(4): 414–431.
55. M. Wojcieszak, "Deliberation and attitude polarization," *Journal of Communication*, 2011, 61(4): 596–617.
56. K. DeBonis, T. R. Blair, S. T. Payne, K. Wigan, and S. Kim, "Viability of a web-based module for teaching electrocardiogram reading skills to psychiatry residents: Learning outcomes and trainee interest," *Academic Psychiatry*, 2015, 39(6): 645–648.
57. A. C. Gunther and S. C.-Y. Chia, "Predicting pluralistic ignorance: The hostile media perception and its consequences," *Journalism & Mass Communication Quarterly*, 2001, 78(4): 688–701.
58. K. M. Schmitt, A. C. Gunther, and J. L. Liebhart, "Why partisans see mass media as biased," *Communication Research*, 2004, 31(6): 623–641.
59. A. C. Gunther and J. D. Storey, "The influence of presumed influence," *Journal of Communication*, 2003, 53(2): 199–215.
60. A. F. Hayes, 2016, <http://www.afhayes.com>, accessed January 31, 2018.
61. G. Keppel and T. D. Wickens, *Design and Analysis: A Researcher's Handbook* (Upper Saddle River, NJ: Prentice Hall, 2004).
62. R. K. Garrett, B. E. Weeks, and R. L. Neo, "Driving a wedge between evidence and beliefs: How online ideological news exposure promotes political misperceptions," *Journal of Computer-Mediated Communication*, 2016, 21(5): 331–348.
63. M. Wojcieszak and H. Rojas, "Correlates of party, ideology and issue based extremity in an era of egocentric publics," *International Journal of Press/Politics*, 2011, 16(4): 488–507.
64. D. C. Mutz, *Hearing the Other Side: Deliberative versus Participatory Democracy* (Cambridge: Cambridge University Press, 2006).
65. E. P. Abril, "Unmasking trolls: Political discussion on Twitter during the parliamentary elections in Catalonia," *Trípodos*, 2016, 39: 53–69, http://www.eulaliapuigabril.net/uploads/7/3/9/5/73956117/abril2016_trolls.pdf, accessed January 27, 2018.
66. A. F. Hayes, C. J. Glynn, and J. Shanahan, "Willingness to self-censor: A construct and measurement tool for public opinion research," *International Journal of Public Opinion Research*, 2005, 17(3): 298–323.

Copyright of Politics & the Life Sciences is the property of Association for Politics & the Life Sciences and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.