The effect of selective exposure on agenda diversity: An experimental analysis of high-choice media environments and issue consensus

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In the age of the high-choice media environment, there is less and less consensus over America's most important problem. Over the last two decades, several studies have demonstrated that agenda diversity—the degree of disagreement over the most important issue—has grown drastically in the U.S. Despite the importance of public consensus in the policy process and for representation, we lack a causal understanding of the mechanisms underpinning changes in agenda diversity. This paper hypothesizes that selective exposure causes greater agenda diversity, as individuals avoid news on issues they are less interested in. This study leverages an experiment ($N = 433$) to investigate the effect of varying levels of selectivity in the media environment on individual-level agenda diversity. Results support the notion that a media environment that allows for selective exposure compared to forced exposure more typical of the broadcast-era results in higher agenda diversity. These findings support the theory that rising levels of media selectivity contribute to a rise in agenda diversity. The implications of an increasingly diverse national agenda are discussed.

KEYWORDS

agenda setting, agenda diversity, experiment, public agenda, issue publics

1. Introduction

Americans increasingly disagree on what issues are important. Over the last two decades, several studies have demonstrated that agenda diversity—the degree of disagreement over the most important issue—has grown considerably in the U.S. (McCombs and Zhu, 1995; Tan and Weaver, 2013; Edy and Meirick, 2018). This growth has worrying implications as public consensus on important issues is critical in policymaking and representation. New research finds evidence of worsening Congressional responsiveness to the public agenda due to growing agenda diversity (Edy and Meirick, 2019). Consequently, continued increases in agenda diversity would likely mean degradation in the quality of representation and public influence on policymaking in the U.S.

Existing investigations of agenda diversity implicate increasing levels of education (McCombs and Zhu, 1995), the number of available news sources (Chaffee and Wilson, 1977; Edy and Meirick, 2019), and growing partisanship (Gruszczynski, 2020), as correlates of agenda diversity. However, there is no increasing diversity in news coverage of issues (Tan and Weaver, 2013), suggesting that agenda diversity is not rising due to changes in public information but something else. As we are witnessing an ongoing growth in the number of news sources with the rise of online and cable news, more opportunities for choice are driving the public agenda apart (Edy and Meirick, 2019). Studies to date rely on aggregate, annual, national averages of agenda diversity and correlational tests between those national averages and similar annual, national measures of any explanatory variables. Thus, while we may understand the associated variables

of aggregate change in agenda diversity (McCombs and Zhu, 1995; Edy and Meirick, 2019), these well-designed, frequently observational studies fall short of making causal claims (Chaffee and Wilson, 1977; Edy and Meirick, 2019). A causal understanding allows us to explore further and potentially develop interventions for reducing agenda diversity.

The following paper reintroduces the connection between selective exposure and agenda diversity from a causal, individual-level perspective and tests the causal merits of that connection. Drawing on the research of selective exposure (Arceneaux and Johnson, 2013), I take an experimental approach to the study of agenda diversity that improves the research design of existing work by allowing for causal analysis. Results demonstrate that media environments that allow for selective exposure—compared to forced exposure—yield significantly higher levels of agenda diversity. These findings are particularly notable because results were acquired in February 2021, amid the COVID-19 pandemic and the most significant moment of agenda consensus in a decade. I further find that allowing individuals to select their news results in agenda diversity similar to the diversity resulting from the existing media environment. Overall, this study demonstrates the causal relationship between being able to choose the news one reads and holding a more diverse agenda.

2. Agenda setting, diversity, and cohesion

Agenda setting was first empirically documented by McCombs and Shaw (1972). Their study found local newspaper coverage of issues corresponded to the most important problem named by individuals in Chapel Hill, North Carolina. They termed this correspondence the agenda setting function of media. In the decades since this first set of observations, scholars have documented agenda setting in the U.S. (McCombs et al., 1997b; McCombs, 2014), in Europe (McCombs et al., 1997a; Green-Pedersen and Wilkerson, 2006; Walgrave et al., 2008), and Asia (Zhang, 2002; Kim et al., 2012; Zhang et al., 2012). Even in the face of a fourth information regime dominated by online media, agenda setting continues to occur (Bimber, 2003; Meraz, 2009; Parmelee, 2014; Boynton and Richardson, 2016; Weimann and Brosius, 2017; Feezell, 2018). The bulk of these studies continues to show the strong relationship between news or media coverage of an issue and a corresponding alteration in the rank-order agenda of a public. But what is the net result of media agenda setting?

Agenda setting is recognized to perform a critical consensus-building function. This consensus-building function leads to increased social consensus on the public agenda (McCombs, 1997). In other words, agenda setting through repeated media exposure leads different sub-groups in society along lines such as gender, income, partisanship, and education to agree more on the most important issue facing society at any given time (Shaw and Martin, 1992). These sub-groups tend to hold drastically different political attitudes and party identifications, so agenda setting offers a form of public consensus on issues despite any ongoing political conflict. This consensus-building is a critical aspect of the healthy functioning of a democracy. If society agrees on its most important problem, deliberation and discussion toward a solution can occur even if multiple sides are critically divided on the proper response.

FIGURE 1
Line plot of agenda diversity from 1955 to 2020 with linear prediction and 95% confidence interval.
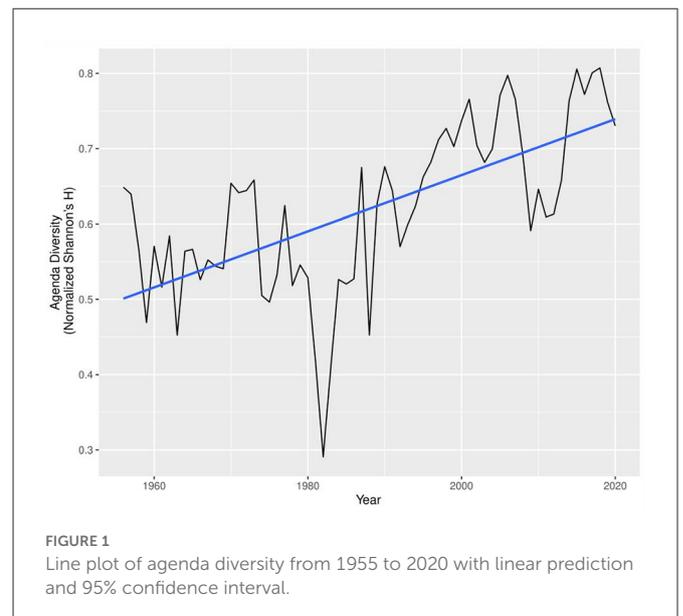
Over time, however, agenda consensus in the U.S. has declined. In 1972, when McCombs and Shaw published their landmark study, the most important problem in the United States was Defense (The Policy Agendas Project at the University of Texas at Austin, 2017). Approximately 28% of Americans noted Defense as their most important problem. By contrast, in 2019, the most important problem was government operations at 15.6%. Thus, the most important issue identified by a plurality of Americans fell by almost half between 1972 and 2019. This diminished level of agreement on the most important issue is a consistent trend over 47 years. One way of encapsulating the public issue agenda's cohesiveness (or lack thereof) is agenda diversity. Agenda diversity is the degree of disagreement in a group over what issue or issues are important. Prior work from a myriad of scholars has demonstrated that agenda diversity has generally trended upward since the mid to late 1980's (McCombs and Zhu, 1995; Tan and Weaver, 2013; Edy and Meirick, 2019). Replicating the Shannon's H measure of aggregate agenda diversity from Tan and Weaver (2013) using Gallup Most Important Problem data updated through 2020 (The Policy Agendas Project at the University of Texas at Austin, 2017), Figure 1 shows that the trend generally continues upward as agenda diversity rises.[1] Consensus over what issue is most important is declining. The public agenda is growing more diverse with time. This alteration in the public agenda mirrors the rise of affective polarization. Affective polarization is the dislike of one's outparty and liking of one's inparty (Iyengar and Westwood, 2015), a phenomenon on the rise over a similar period to affective polarization (Iyengar and Krupenkin, 2018). It appears that some transformation in the lives of American citizens is driving the growth of these two distinct concepts reflective of collective disagreement.

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1 Normalized Shannon's H Information Entropy is a means of measuring diversity at the aggregate level by framing agenda diversity as a measure of uncertainty. In our case, this is uncertainty about the most important problem identified by the American public. I make use of Shannon's H as it is used by Tan and Weaver (2013) to measure agenda diversity, and Boydstun et al. (2014) find Shannon's H to be the most robust measure of attention diversity.

Growing agenda diversity does portend consequences for the functioning of American democracy. While far more investigations into the consequences of agenda diversity remain necessary, there is evidence of worsening Congressional responsiveness to the public agenda due to changes in agenda diversity (Edy and Meirick, 2019). This relationship is sensible as a well-known relationship between issue salience and policymaking exists (Jones and Baumgartner, 2005; Baumgartner and Jones, 2009). If agenda diversity rises, the clarity of issue cues to legislators is degraded. If the public identifies many different issues as important, it is difficult to disentangle which issues are most critical, and, therefore, salient for policymakers to address. The degradation of Congressional responsiveness due to rising agenda diversity leaves a vacuum for other actors like interest groups or parties to determine issue salience. Interest groups have long played critical roles in setting the legislative agenda (Kingdon, 1977), but a public agenda lacking consensus might allow space for their further influence. Nonetheless, the implication is clear. Rising agenda diversity is associated with reduced government responsiveness to the public and a worrying degradation in U.S. democratic quality. So, if rising agenda diversity results in degradation in the quality of representation, what causes it?

3. Selective exposure and agenda diversity

Investigations into agenda diversity point to a number of different sources of change. Chaffee and Wilson (1977) were the first to explore agenda diversity. They found greater diversity in communities with more newspapers. McCombs and Zhu (1995) found that at the national level, U.S. agenda diversity had increased over time in the U.S. through 1994 and attributed this rise to growing levels of education in American society. In a follow-up study, Tan and Weaver (2013) found that agenda diversity continued to rise to 2004. This rise, they describe, was not correlated with an increasing diversity of news and media provided by long-existing media providers. In their later study, Tan and Weaver (2013) further assert that this finding implies rising agenda diversity is correlated with a rise in the number of media sources and not a change in the content provided by existing media. This finding is well-supported by Edy and Meirick (2019), who show evidence that a rise in media sources is associated with driving the public agenda apart. Collectively, these past investigations demonstrate a long-term trend of rising agenda diversity and that rise's general association with rising education levels and increasing media outlets. However, these existing works share a clear methodological thread. While some details of their measurement may vary, they all rely on time-series data where measures of national agenda diversity are taken once per year (similar to the data shown in Figure 1). Using OLS regression analysis, this national average is then modeled to predict an aggregated explanatory variable of interest. While these studies provide strong theoretical expectations to support that the rise in media selectivity should cause an associated rise in agenda diversity, the existing research falls short of identifying and testing the implied causal mechanism.

What about the growth in media sources leads to more agenda diversity? I argue that the selectivity that results from increasing numbers of media sources afforded is at fault. Selective exposure is choosing information that conforms to one's attitudes while avoiding information that confronts them (Garrett and Stroud,

2014). Furthermore, more media sources mean more opportunities for selective exposure (Mutz and Martin, 2001). This can take the form of selecting entertainment instead of news (Prior, 2007), and selecting certain kinds of news over another. Most commonly, selective exposure is thought of as choosing like-minded partisan news (Garrett, 2009; Garrett and Stroud, 2014), such as Republicans viewing Fox News and Democrats viewing MSNBC. However, this work concerns an individual selecting news based on the issue covered.

Issue publics are groups of individuals who associate themselves with a particular issue, often out of personal interest in that issue (Krosnick, 1990). Selectivity is associated with issue public membership, issue knowledge, and importance (Kim, 2009). Thus, selective exposure leads individuals to join issue publics and choose news that informs them on that issue. This connection between selectivity and issue public membership drives agenda diversity in two ways. First, if everyone is focused on a single or small subset of issues due to their personal relevance, you have citizens generating a public agenda based on inflexible, disparate issues of personal concern. The lack of cross-cutting, consensus-building exposure to broadcast news thus leads to a deeply diverse public agenda based entirely on individual focus on personal issues. Second, in choosing to focus on specific issues, they will resist the pull of public consensus even when exposed to consensus-building news due to the stronger agenda setting effects their issue of choice generates for them. Thus, any incidental exposure they may experience is less likely to alter their issue preferences, keeping their agenda distinct from the consensus being pushed by traditional, consensus-building media outlets. Ultimately, if an individual chooses news about an issue that matters personally, they effectively set their own agenda. This self-driven agenda setting is starkly different than the more forced exposure which occurred during the broadcast era, with a small number of broadcast news networks and newspapers choosing issues for the individual. Selectivity is at fault simply because individuals are often selecting news about issues of personal importance, but because the cognitive processes behind agenda setting support tell us that the agenda setting effect of the selected news will be stronger.

Issue attention is driven by an individual's need for orientation (Weaver, 1980). Need for orientation represents a combination of uncertainty about a topic an individual may be exposed to and the perceived relevancy of the topic (Weaver, 1991; McCombs and Stroud, 2014). For example, an individual may be uncertain about the current state of the national economy—an issue with potential personal consequences—and therefore, that need for orientation drives them to seek out information to reduce the cognitive load induced by uncertainty about their environment. Need for orientation constitutes the motivation for seeking information. While this uncertainty motivating news-seeking may occasionally broach issues beyond personal interest, an issue area of personal interest will undoubtedly be on the mind of individuals and drive news-seeking behavior. Thus, individuals will tend to select (intentionally or not) news on issue areas that they find more frequently generate uncertainty or concern. A businessperson can pay close attention to issues of the most personal relevance, such as national economic and tax policy. However, avoiding frequent news on the War in Ukraine may be relatively easy. Compare this with broadcast era news, where a businessperson could not easily avoid news of the Vietnam War when trying to keep up on national economic policy debates or the state of the stock

market. Our imagined businessperson would have to sit through the segment on Vietnam on the nightly news to see segments they cared most about.

Selectivity may also result in a more robust agenda setting effect. Partisan selective exposure leads to greater attitude accessibility (Knobloch-Westerwick, 2012), implying issue importance may be easier to recall when selecting the news, as issue importance is a form of attitude. Let us then consider what occurs following information exposure. Existing research tells us that one of two processes can occur. Takeshita (2006) proposes these processes as agenda cueing and agenda reasoning (Pingree and Stoycheff, 2013). Agenda cueing represents a cognitive shortcut that leads individuals to recall an issue and then designate the importance of said issue based on the coverage provided by the media (Pingree and Stoycheff, 2013). Agenda reasoning is an involved cognitive process where an individual gains insight through receiving larger volumes of information on an issue and learns of the relative importance of an issue by understanding or receiving the reasoning behind the media's designation of an issue as important (Pingree and Stoycheff, 2013). Based on more prominent theories of online processing, agenda reasoning represents the central route of information processing and agenda cueing the peripheral. Agenda cueing leads to a more unstable agenda setting effect, while agenda reasoning results in a more stable one (Bulkow et al., 2013). Suppose individuals select news on issues they find more pressing and engaging (e.g., when it is the focal issue of their issue public). In that case, they likely see more news on the issue and reason with the agendas portrayed in such media. Thus, the news on issues they choose to engage with will result in a robust, stable issue agenda that is broadly appealing to the individual. Meanwhile, cue-based agenda setting for issues an individual is exposed to infrequently will have a more challenging time overriding the individual's more stable, robust issue agenda. Selectivity then provides opportunity for agenda reasoning, creating strong personal issue agendas that cross-cutting news has a hard time disrupting.

To summarize, rising agenda diversity levels over the past decades are believed to be due to increased opportunities for selective exposure. I argue that media environments that enable selective exposure cause increased agenda diversity by allowing individuals to view news on issues of personal interest, which are widely varied. This process of selectivity leads to agenda diversity through resistance to or avoidance of consensus-building news. This model of agenda setting stands in stark contrast to the broadcast era, where exposure to news in the search for entertainment was common. In essence, to watch television, forced exposure to consensus-building stories was likely. As a result, I anticipate that receiving news in a broadcast-era style forced exposure environment will lead to lower agenda diversity and higher issue consensus.

H1: A selective exposure media environment will significantly increase agenda diversity compared to a forced exposure media environment.

Beyond the causal relationship between selective exposure and agenda diversity, the question remains whether a forced or selective exposure treatment condition best characterizes the current media environment. Given the rise of the fourth information regime (Bimber, 2003), a large number of media sources, and the ease and speed with which one can opt-in and out of specific information streams, one would expect a highly selective news environment would closely match real-world conditions. Thus, in an experimental

approach, opportunities for selective exposure should result in similar levels of agenda diversity to the existing information environment since selectivity characterizes the current environment. Similarly, exposure to no treatment in a control condition should also mimic the results of a selective exposure media environment, as it effectively tests the status quo today. A forced exposure treatment, however, should result in significantly lower agenda diversity compared to a control group and the selective exposure condition. Thus, to validate the representativeness of the selective exposure condition, I pose the following hypothesis:

H2: A selective exposure media environment will result in agenda diversity similar to the control condition.

Finally, to test the relationship of a broadcast-style forced exposure treatment on agenda diversity, I pose the following hypothesis:

H3: A forced exposure media environment will significantly lower agenda diversity compared to the control condition.

4. Methods and data

Existing research uses time-series survey data to examine agenda diversity across time and across varied information environments, almost all of which focus on the United States (e.g., McCombs and Zhu, 1995; Edy and Meirick, 2018, 2019). This approach demonstrates the external validity of the relationship between media environments and agenda diversity. Still, it prevents such studies from demonstrating the causal connection between their explanatory variables and agenda diversity. In this study, I aim to build on that high external validity of existing works by providing evidence from a design with high internal validity and an ability to demonstrate causality: an experiment.[2] An experimental design provides an opportunity to test the causality of the presumed mechanism of influence established in the literature at the individual level. Since participants are randomly assigned in an experiment, only the treatments themselves should be capable of altering agenda diversity. Thus, using the opportunity to demonstrate causality while controlling for potentially unknown confounding variables, this study can build on existing work's observational, regression-based methods to identify the causal mechanism more clearly.

This experimental design randomly assigns subjects to three conditions: the selective exposure condition—designed to emulate the current media environment—the forced exposure condition—designed to replicate a broadcast era media environment—and a control condition.[3] The first two groups are exposed to their respective treatments before all groups receive the same survey containing instruments measuring issue salience and a host of control and other variables. Specific issue importance, demographic, and partisanship questions are drawn directly from the Cooperative Congressional Election Study (Ansolabehere and Schaffner, 2017). The selective condition is designed to mimic modern media

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2   This experiment was pre-registered prior to deployment using the Center for Open Science's pre-registration tools.

3   Power analysis estimated an *N* of 280 would be necessary to find an effect size of 10%, a standard deviation of the outcome variable of 10, at a standard power of 0.8. The final *N* was 433.

consumption technologies by allowing for individual choice in issues covered. The forced condition is designed to mimic the forced (i.e., incidental) exposure more common of broadcast era news. Lastly, the control condition acts as a measurement of the real environment and does not provide any form of treatment to participants. It is the benchmark by which H2 and H3 can be tested.

In the selective exposure condition, participants are prompted to select the story they would most like to read from a list of 10 headlines and their associated short news blurbs. These news pieces included the article's headline, a small thumbnail of the article's header image, and the first few lines of the article's text. The display of the news selection was designed to mimic newsfeeds commonly available on platforms like Google News and Apple News. The treatments include the story headline, the associated image, and a sentence or two-length blurb from the article. The treatment and survey could be completed on a computer, tablet, or phone without much variation to the stimulus as the formatting for each device was dynamically altered for convenient interaction. The news stories were pulled from the A.P. News in the hours before deployment of the experiment. A random list of 10 issue areas was chosen from the Comparative Agenda's Project's standardized set of major issue categories (Bevan, 2014), with one news story being pulled from each issue area. An example image of four news stories as portrayed as they appeared in the study can be found in Figure 2. All members of selective condition received the same 10 stories, though their order was randomized. Randomizing story order was important to avoid a primacy effect, where participants may favor the first story's issue due to it being the first information they encountered. Ten stories were chosen to mimic the number commonly seen on the desktop front-page of news aggregators and major news sources. For example, Google News often displays five "top stories" alongside five side stories. Of course, there is wide variation in how many stories, images, and formats across sources and services. CNN, for example, often displays 20 or more stories on its front page. As such, 10 was chosen as an approximate median among a number of the most popular surveyed options such as Google News, Apple News, the New York Times, and CNN.

In the forced exposure condition, all participants were exposed to a single headline, its associated cover image, and blurb. The topic for the story shared to the forced exposure condition, immigration, was randomly selected from a list of issue areas. The most recent immigration story was pulled from A.P. News hours before deployment. All members of the forced condition received the same story. For the control condition, participants were exposed to nothing and were directed straight to the survey. The control condition is included to test H3 and ascertain which of the two treatment conditions—forced or selective—is closer to the current "real" environment. It is important to note that since the experiment occurs at a single point in time, it is a conservative test of the proposed hypothesis. As repeated exposure is critical in strengthening and stabilizing media effects (Roskos-Ewoldsen, 1997), a single exposure will likely provide the weakest effect. Thus, a significant difference found in the experiment should be magnified in a real-world environment as selective exposure occurs many times a day for each individual.

Participants were recruited using Amazon's Mechanical Turk. Each participant was verified using Cloud Research to check for bots, those attempting to participate outside the United States, and blocking those who attempted to participate more than once *via* their I.P. address; all while ensuring a healthy proportion of less

experienced Mturk users—to avoid having a sample of entirely Mturk power users—allowing for a balanced sample of U.S. residents (Robinson et al., 2019). The United States was chosen as the focal case as much of the existing literature focuses on agenda diversity in the United States over time. By focusing on the casual story of agenda diversity in the US, this paper can directly contribute to this existing discussion. It should be noted that despite the COVID-19 pandemic, samples on Mturk remained relatively consistent and representative of the populace (Moss et al., 2020). These 400 participants were randomly assigned to the selective exposure, forced exposure, or control conditions. An attention check was included in the short 5-to-8-min experience to ensure only attentive participants were used in the final sample. Participants were compensated monetarily upon completion of the experiment at a rate of ~$15 an hour.

The experiment was deployed and closed on February 18th, 2021. Four hundred and thirty-three participants completed the experiment.[4] The median participant was between the ages of 40 and 44, had a 4-year college degree, and made between $50,000 and $59,999 the prior year. The sample contains 53% men, 46% women, >0.01% another gender, and >0.01% preferring not to say. The sample is 77% White, 7.5% Black, 7.3% Asian, 5.5% Hispanic, 2.7% Mixed Race, and >0.01% Other Race. Balance tests were performed for gender, race, party, and age. Balance tests are statistical tests which are designed to demonstrate that certain demographic and other characteristics vary equally across treatment and control groups. While randomization should ensure individuals of different characteristics are equally distributed across the three conditions, balance tests provide support for this assumption. In the case of the experiment presented ahead, all balance tests were insignificant, implying even distribution of the tested demographics to all conditions.

To measure agenda diversity, I turn to past research on individual-level agenda diversity to operationalize agenda diversity in a manner measurable at the individual level. Peter and Vreese (2003) operationalize agenda diversity as the number of distinct issues a respondent identifies as important. Measuring agenda diversity in this manner measures an individual's contribution to agenda diversity. If traditional approaches measure aggregate noise in the agenda environment, measuring the number of issues mentioned by each individual captures the volume of noise that a given individual is contributing. Thus, following in Peter and Vreese (2003) footsteps, I measure each participant's contribution to agenda diversity as the total number of issue categories that a respondent designates as either "Somewhat High Importance" or "Very High Importance." The mean agenda total across all participants in the sample was 10.1 out of a maximum of 15 issues. In other words, participants designated an average of 10.1 out of 15 possible issues as "Somewhat High Importance" or "Very High Importance."[5] A histogram of the agenda total measure of agenda diversity is available in Figure 3.

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5 The fifteen issues measured were, similar to other questions, modeled on the measure of thematic agenda diversity found in the recent, 2016 Cooperative Congressional Election Study. The question wording can be found in Supplemental material.

FIGURE 2
Example of four news blurbs (of 10 total featured in the selective condition of the experiment).
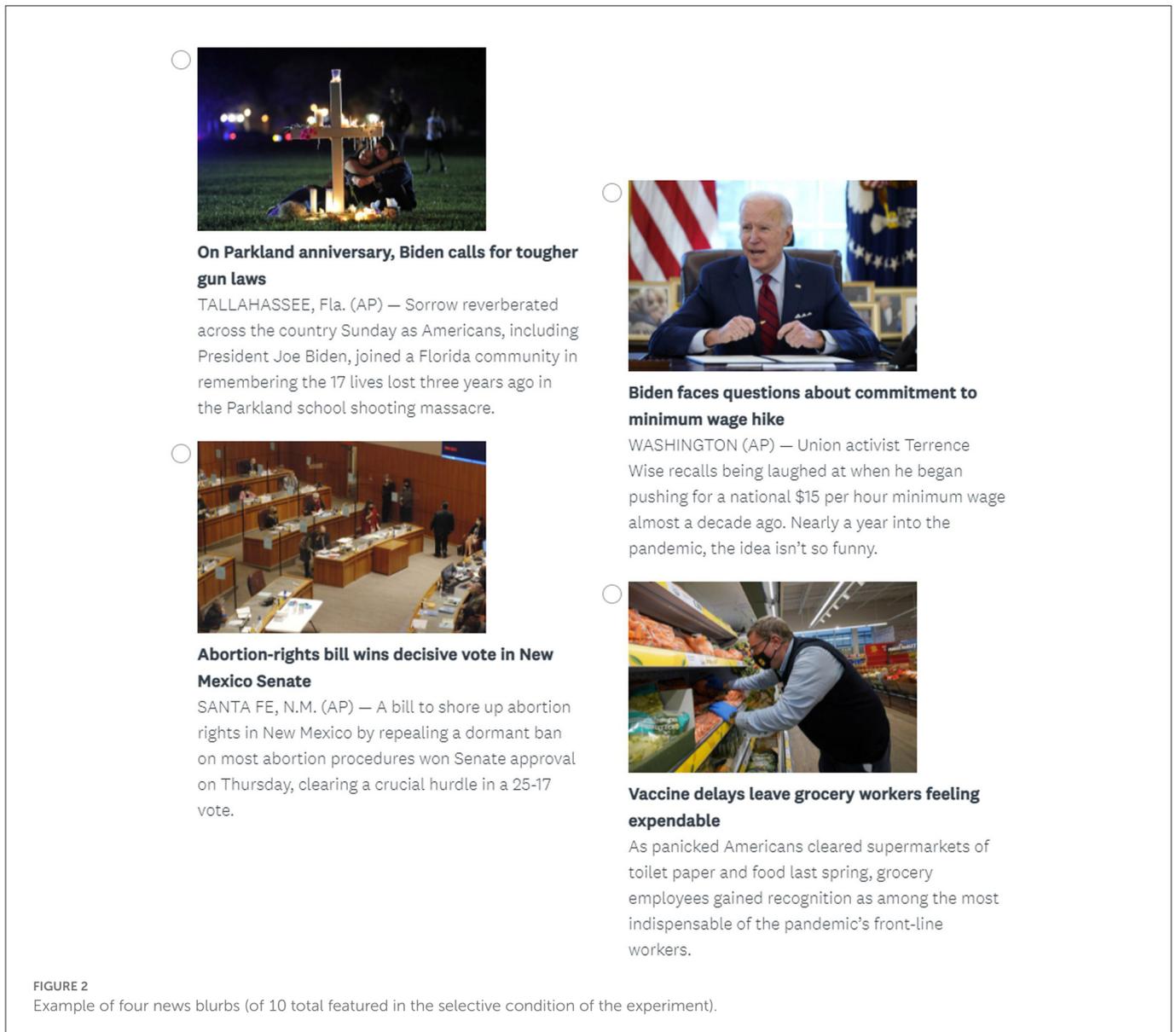
5. Results

A *t*-test between those participants in the forced, selective, and control conditions is appropriate to test the proposed hypotheses. In particular, each *t*-test compares the mean value of each pair of conditions to provide support for or rejection of hypotheses one through three. The test results of these *t*-tests can be found in Figure 4 alongside a boxplot comparing each group to one another. The *p*-value of each paired *t*-test is expressed above the box by a line that connects two of the conditions. Recall in comparing the forced and selective conditions, the hypothesized relationship (H1) contends that the forced exposure condition exhibits significantly lower diversity than the selective group. Results from the experiment support this hypothesized relationship ($p = 0.033$). The mean agenda total for the forced exposure condition is 9.66, less than the 10.45 exhibited by the selective exposure group. Thus, the selective exposure treatment results in significantly higher agenda diversity than the forced exposure treatment.

However, which of these two conditions more closely resembles the current environment per H2 and H3? When comparing the selective and forced groups with the control—left free of any intervention—results indicate that the selective condition is more similar. The forced condition achieves a *p*-value of 0.087 when a *t*-test compares it with the control group. Conversely, the selective exposure condition achieves a *p*-value of 0.63. The forced exposure condition exhibits marginally lower agenda diversity than the control condition, while the selective exposure condition shows no statistically meaningful difference. These findings are further supported by reviewing the mean agenda total of the control condition, which is 10.27. Thus, the control group mean is only 0.17 less than the selective exposure condition's mean but 0.61 greater than the forced exposure condition's mean.[6] Overall, I find

6 That the control condition mean lies between the forced and selective condition means also reinforces that the results of the experiment are not merely a function of total information exposure. If agenda diversity were a function of stories an individual was exposed to, one would expect agenda

FIGURE 3
Histogram of total number of issues considered somewhat or very high importance by participants.

FIGURE 4
Boxplot of agenda totals by experimental group with associated t-tests comparing groups.
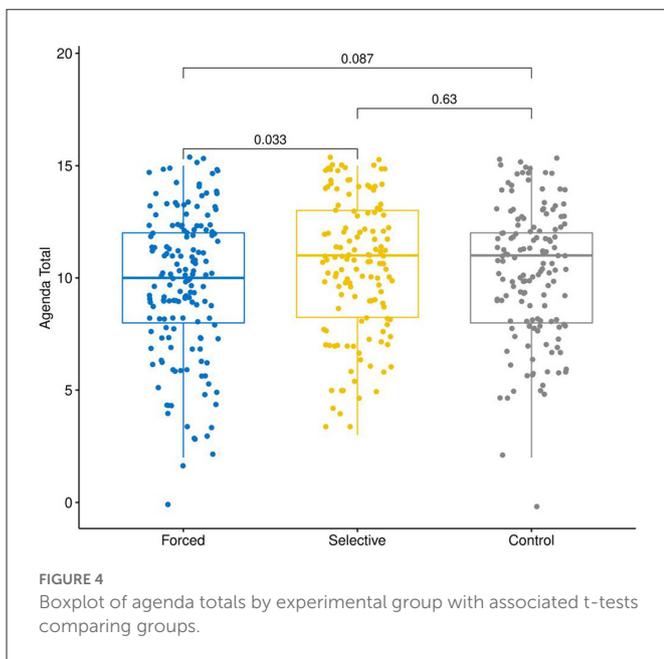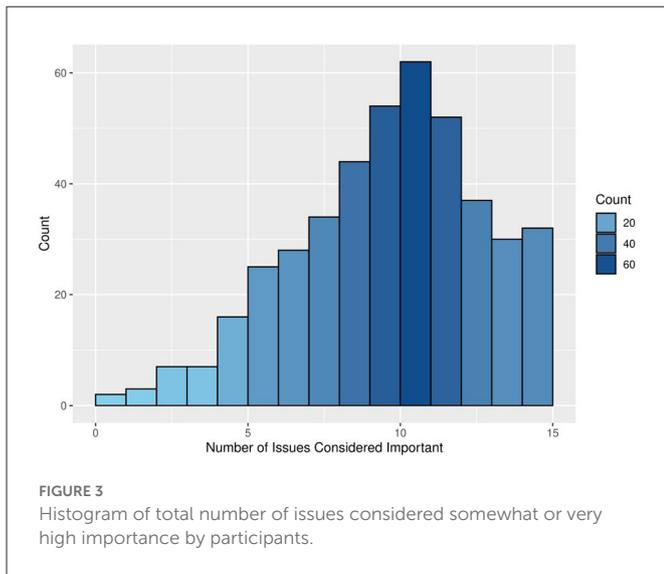
support for the H2 that the opportunity for selective exposure yields similar agenda diversity to the control condition—the measurement of the "real" environment. There is tentative support for H3, that the forced exposure opportunity yields lower agenda diversity than the control condition. However, that difference only achieves marginal significance.

6. Conclusion

This paper argues that increased opportunities for selective exposure presented in the current media environment cause increases in agenda diversity compared to the forced exposure conditions reminiscent of the broadcast information era. Existing studies

diversity to be highest for the selective condition (10 stories) followed by the forced (1) and control (0) conditions.

provide strong observational evidence that more media sources have resulted in driving apart the public agenda (Chaffee and Wilson, 1977; Tan and Weaver, 2013; Edy and Meirick, 2019). A growing volume of media sources affords clear opportunities for selective exposure. Building on the accumulated generalization of the relationship between the number of media sources and agenda diversity, this study demonstrates the causal relationship between selectivity and agenda diversity. The primary hypothesis tested contends that an opportunity for selective exposure will lead to greater agenda diversity. Need for orientation should drive individuals to seek news most relevant to their greatest uncertainties avoiding news that may have otherwise generated greater public agenda cohesion. Additionally, agenda reasoning should be more prevalent in cases of selective exposure, leading to more robust agenda setting effects, making it more difficult for new issues to gain traction.

To investigate the proposed relationship, this work uses an online experiment. Results demonstrate a singular act of selective exposure results in significantly higher agenda diversity than forced exposure. These findings imply an even stronger result in an even more externally valid study than this, as selective exposure is liable to occur dozens if not hundreds of times a day beyond the results of a singular case of exposure demonstrated here. In fact, investigating frequent selective and forced exposure over time is a clear avenue for future research as it may—worryingly—yield more substantial results if the theorized role of agenda reasoning and preferring specific issues holds. In other words, since individuals are selectively exposing themselves to issues many times a day, the effects found in this study may compound.

This study's framing and deployment of news to individuals is a limitation. This study ensured the news stories chosen were real and the display technology closely mimicked news aggregators like Google News and Apple News. The goal of this was to ensure a realistic form of information steam while avoiding unforeseen framing effects from attempting to mimic social media platforms. However, how many people use Google News or Apple News? For this sample, at least 50% reported using Google News in the last 24 h, and 15% reported doing so with Apple News. While this implies that most respondents interact with these information streams frequently, 66% reported using either Facebook, Instagram, Twitter, or TikTok in the last 24 h. Social media platforms are used by a larger audience than news aggregators, but there are sender and framing effects involved that this study does not investigate. Social media impart agenda setting effects, as shown in the case of Facebook by Feezell (2018). However, the potentially unique implications of agenda setting on social media—due to interaction with trusted social connections, for example—for agenda diversity are unknown.

The relationship between the control condition and the forced and selective conditions is worth further investigation. Given the rise of online media and more media outlets in general, I expected the control condition to resemble the selective condition more closely. While this holds, marginal differences in the forced treatment condition may imply that forced exposure is not so distant a memory as anticipated. This marginal result may be due to the timing of the study. It is difficult to precisely know the effects of the COVID-19 pandemic on the experiment reported here. The widespread impact of the pandemic has likely consolidated the public agenda for the first time since the Great Recession. Thus, measurement of the actual public agenda in the control condition may more closely

resemble broadcast era public agendas, where consensus on one or two issues was higher. However, it also serves to demonstrate the strength of the results found above. That a singular case of selective exposure compared to forced exposure during a pandemic—the type of consensus-building event seen once a decade or more—demonstrated a clear and significant relationship is remarkable. Nonetheless, the effects of current events and consensus-building events like the pandemic beckon for further investigation. How and when social, economic, and political realities force greater consensus during exceptional moments—such as the pandemic—and if media effects on agenda diversity are altered in those high-consensus conditions remains unknown.

One final limitation of a study such as this is its focus on a single case, the United States. This focus is due to the existing literature on agenda diversity in the United States, and this work contributes a causal explanation directly to those works. Of course, the present work draws on the innovative work on agenda diversity of European scholars such as Peter and Vreese (2003). Agenda setting is a robust phenomenon exhibited across a multitude of states such as South Korea (Kim et al., 2012), Spain (McCombs et al., 1997a), Japan (Takeshita and Mikami, 1995), and China (Zhang, 2002; Zhang et al., 2012). While this hopefully means the overall causal effects exhibited by the experiment displayed in this work should hold across cases as agenda setting remains effectual, there are a couple of unique aspects to the American case. First, the United States' large size and cultural heterogeneity may generate more extensive levels of agenda diversity than seen in smaller, more homogenous states, which may exacerbate the effects of selectivity as there are more voices in media and media sources. However, Peter and Vreese (2003) find that growing agenda diversity is associated with more media sources in several European states, mirroring findings in the US case. Thus, the findings exhibited here should hold in the European case, though it would be prudent for future work to test the findings of this work in additional cases.

Second, agenda diversity is associated with partisanship in the United States (Gruszczynski, 2020), and thus, its two-party system and associated public opinions may lead to differential levels of agenda diversity. Namely, polarization in the US case is receiving increasing scrutiny as disdain between partisans is growing (Iyengar and Westwood, 2015). This polarization is associated with and potentially caused by the same fragmented, selectivity-affording media environment (Iyengar and Hahn, 2009; Levendusky, 2013; Prior, 2013) outlined as affecting agenda diversity in this work. Thus, it would appear that the modern media environment is generating a United States consisting of partisans who detest one another and profoundly disagree on what issues are important. Again concerning other potential cases, while the American case may exhibit unique racial, ethnic, and social cleavages, affective polarization is exhibited in many multiparty states, but levels of polarization fall far short of the United States in some states and exceed it in others (Wagner, 2021). Thus, agenda diversity may experience similarly wide variance across cases, a subject teeming with potential for future research.

In sum, one instance of selective exposure yields significantly greater agenda diversity than forced exposure. This causal relationship implies as affordances of selective exposure expand with technology and broadcast-era staples like the nightly news dwindle, cues to public officials about the issues Americans believe are important will become murkier and indistinct. In turn, this degradation in the clarity of issue importance cues from the public to politician undermines policymaking by affording more policy agenda setting power to non-public actors like interest groups. Furthermore, this degradation likely reduces the efficacy of many citizens who will witness a policymaking process that does not prioritize the problems they hold as important. However, greater access to selective exposure does return the power of agenda setting to citizens. Increased agenda diversity, therefore, may be an artifact of selective exposure undercutting elite-borne processes of news creation (Boydstun, 2013), as citizens can view news based on their priorities and less the priorities of notable elites. This power shift is notable.

Data availability statement

All data and analysis presented in this article are available for replication purposes on Dataverse at https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/UECVLM.

Ethics statement

The studies involving human participants were reviewed and approved by Office of the Institutional Review Board, University of New Mexico Federal-Wide Assurance Number: FWA00004690, IRB registration number: IRB00000431. The patients/participants provided their written informed consent to participate in this study.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

Funding

Acknowledgments

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpos.2022.1022782/full#supplementary-material

SUPPLEMENTARY DATA SHEET 1
Which provide descriptive statistics and question wordings.

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