How the Pro-Beijing Media Influences Voters: Evidence from a Field Experiment*

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Abstract

Many countries have devoted considerable resources to projecting influence internationally. One common approach to launching overseas information campaigns is the cooptation of foreign media outlets to disseminate preferred messages; yet, there is little well-identified evidence that can tell us whether such influence operations are effective. I conducted a field experiment during the 2020 Taiwanese presidential election to examine whether and how a major pro-Beijing media outlet influenced individuals’ vote choices and opinions about China. Weeks before the election, I randomly provided voters with real-time political news articles from the pro-Beijing media outlet on a website and tracked their exposure patterns using web traffic data. Results based on a panel survey at the individual level show that pro-Beijing news nudged people exposed to it to vote for China’s preferred candidate and adopt more positive attitudes toward China. Yet the pro-Beijing media outlet in this study had a negligible effect, sometimes even backfired, for voters who had been dismissive of China ex ante and those who think this media outlet is affiliated with the Chinese government. Further evidence suggests that the results were driven by news content rather than news source. Because Taiwan is not the only case China seeks to influence in this way, the results have implications for Hong Kong, Australia, and the United States, among others.

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1 Introduction

Overseas media operations are ubiquitous. In both democracies and autocracies, many governments have devoted considerable resources and efforts to influencing the public outside their borders. Prior studies focus mainly on the political impact of foreign media in autocracies (Crabtree, Darmofal and Kern, 2015; Crabtree, Kern and Pfaff, 2018; Kern, 2011; Kern and Hainmueller, 2009; Krugler, 2000). Some recent work has investigated foreign media’s cross-border effects on democratic elections (DellaVigna et al., 2014; Peisakhin and Rozenas, 2018). Yet, no media influence receives more attention today than the overseas media operations deployed by powerful autocratic countries like China and Russia (Chapman and Gerber, 2019; DiResta et al., 2020; Fisher, 2020; McCabe, 2020).

China views political persuasion and information management as a top government priority (Brady, 2009). In recent years the country has engaged in global information campaigns to promote the country’s positive image and political agenda. China’s overseas media operations take various forms, including coopting foreign media outlets (Dai and Luqiu, 2020; Hamilton, 2018; Hsu, 2014; Sciutto, 1996), expanding its state-owned media networks (Bailard, 2016; Gorfinkel et al., 2014; Wasserman and Madrid-Morales, 2018), and using social media (Min and Luqiu, 2020) to disseminate Beijing’s preferred messages abroad.

As for China’s global information campaigns, Taiwan is an important target. From its inception in 1949, the Chinese Communist Party (CCP) has claimed the island is part of China’s sovereign territory. To deter Taiwan from pursuing independence, China has invested heavily in Taiwan’s media outlets to influence news coverage on the island (Hsu, 2014; Huang, 2017). Reports show that China has given a Taiwan media outlet, The China Times, editorial instructions on how China–Taiwan issues should be covered (Aspinwall, 2019; Hille, 2019; Hsu, 2014). The CCP also provides funds to media outlets that adopt a pro-Beijing line in their reports (Huang, 2019a; Lee and Cheng, 2019). China’s involvement in Taiwan’s media market has led to mass protests against ”red media,” that is, Taiwan-based media that actively fall in line with Beijing’s interest.

Concerns about China’s interference in elections through friendly media have become salient in recent years, but the effectiveness of pro-Beijing media in affecting voters remains unknown because there is little well-identified evidence. The effect of exposure to pro-Beijing media is not a priori obvious. Some writers have claimed that increasing access to China-friendly information will sway receivers in China’s desirable direction (Huang, 2019b). Previous studies also suggest that most media consumers do not discount media bias strongly enough and are thus subject to persuasion upon exposure (Cain, Loewenstein and Moore, 2005). By contrast the impact of pro-Beijing media could be trivial because people may be certain about the bias of the media and thus exposure will have no effect on
beliefs and voting (Durante and Knight, 2012). The limited impact of the political media may be particularly true in democracies in which media consumers exercise greater choice over both media content and sources (Arceneaux and Johnson, 2013). Still others argue that increasing the supply of such media messages among voters will not lead to a greater convergence of beliefs: the study of confirmatory bias shows that giving additional information to people with different prior opinions can lead to divergence rather than convergence of beliefs (Levendusky, 2013).

Identifying the effect of pro-Beijing media on individuals’ voting behavior and political attitudes is challenging. Most studies of the effects of the media are limited by their dependence on survey methods and observational data. In this tradition the standard test for media effects is the difference in outcomes for individuals who report high levels of media exposure and those who report low levels. This design has two major problems. First, people’s political media use is often endogenous to their political preferences (Bartels, 1993; Stroud, 2008): those who choose to tune in to pro-Beijing media may differ systematically in ways that matter to their vote choices and opinions about China from those who do not. This selection issue vitiates the ability to disentangle cause from effect. Despite recent advances in the design of observational studies (DellaVigna et al., 2014; Peisakhin and Rozenas, 2018), they cannot identify the causal impact of media communication without invoking assumptions about the unobservables. Second, relying on self-reported media use and news consumption can lead to biased conclusions due to faulty recall, social desirability concerns, and other sources of misreporting (Prior, 2013; Guess, 2015).

To address the methodological hurdles, I use a field experiment that randomly assigns study participants to receive real-time political news coverage from The China Times. I present the news coverage on a website and incentivize participants to browse the website in the weeks leading up to the 2020 Taiwanese presidential election. To probe whether and how much participants consume news coverage from the website, I use web traffic data to track their browsing behavior on the website. Compared to self-reports, the tracking data provides much more accurate information on individuals’ exposure patterns.

A panel survey was conducted to measure people’s voting decisions and attitudes toward China before and after the experiment. I fielded a baseline survey four weeks prior to the election, giving random participants access to the news website. After the election, I recontacted all participants for an endline survey. By combining the survey data and tracking data, I examine the individual-level changes in outcome scores as a result of exposure to the pro-Beijing news. The survey also contains a rich set of participants’ background characteristics, allowing me to evaluate effect heterogeneity.

Results show that pro-Beijing news has a direct impact on people’s candidate choices.
Those who are randomly assigned to receive the news website become more likely to vote for China’s preferred presidential candidate. In substantive terms, exposure to the news coverage moves from 15.9 to 26.8 percent (depending on the definition of compliance) of voters who were not already persuaded to choose China’s preferred candidate on election day. Importantly, the effects are realized mainly by persuading undecided voters and bringing partisans home rather than by turning voters away from their initial vote intention.

The same political stimulus has differential effects on voters with opposing political priors. Although the pro-Beijing media in this study on average had an intended effect on voters’ favorability toward China and its preferred candidate, these results are predominantly driven by people who are predisposed to accept China-friendly messages and those who are nonpartisans. By contrast the same pro-Beijing news had a negligible, even backfire, effect among those who had been more China-skeptical \textit{ex ante} and those who think the pro-Beijing media outlet in this study is connected with the Chinese government.

More evidence suggests that the results work through persuasion: the treatment effects are significantly larger among voters who are less attentive to the 2020 election in the baseline survey and those who think the pro-Beijing media outlet is a credible news source. These results are consistent with models in which people with lower stored information are more susceptible to media messages (Zaller, 1992). They also align with studies showing that persuasive messages work best when their perceived credibility is high (Lupia and McCubbins, 1998). I further evaluate why the pro-Beijing media influences voters, finding that pro-Beijing news triggers people’s cognitive and emotional reactions in the direction consistent with the way the treatment changes their behavior and attitudes. A placebo test confirms the findings.

This paper offers two main contributions. First, it is the earliest investigation that analyzes the effectiveness of China’s overseas influence operations in swaying voters. My field experiment provides evidence that a main pro-Beijing media outlet successfully affects the public outside mainland China in Beijing’s favor. Second, this paper presents and implements a new approach to documenting political media effects in real-world settings through the combination of field experiment and observed behavior of media consumption.

My study differs from those exploring media effects in laboratories (Benedictis-Kessner et al., 2019; Levendusky, 2013); it also differs from studies examining only attitudes (Arce-neaux and Johnson, 2013; Benedictis-Kessner et al., 2019; Bleck and Michelitch, 2017; Druckman, Peterson and Slothuus, 2013). Even if some scholars examine voting behavior, their analyses are based on either aggregate data (Adena et al., 2015; DellaVigna and Kaplan, 2007; DellaVigna et al., 2014; Martin and Yurukoglu, 2017) or self-reported media exposure (Peisakhin and Rozenas, 2018; Gerber, Karlan and Bergan, 2009). In contrast to these stud-
ies, in the current study I use individual-level data with information on individuals’ media consumption behavior in real-world settings.

The findings of this paper have important implications for current events regarding not only the general issue of foreign interference in democratic elections but also the rise of China and its influence on neighboring countries—perhaps even its global reach.

2 Theoretical Expectations

Citizens learn about politics and government from mass media (Graber and Dunaway, 2017; Paletz, 2002). The role of the media is most evident at election times, when the media are the primary conduits of information between candidates and voters. Because few people attend rallies or have direct contact with the candidates or their representatives, most voters have incomplete information about candidate quality and policy positions. The media thus provide the bulk of information voters can use in elections. Voters form or update their evaluations of candidates through media-based information (Dalton, Beck and Huckfeldt, 1998; Gelman and King, 1993; Kahn and Kenney, 2002).

Consistent with these arguments, recent empirical work provides evidence of media effects on voters’ evaluation and choice of candidates (Adena et al., 2015; DellaVigna and Kaplan, 2007; Druckman and Parkin, 2005; Huber and Arceneaux, 2007; Ladd and Lenz, 2009; Martin and Yurukoglu, 2017; Murphy and Devine, 2018). These studies align with some early work (Barker, 1999; Bartels, 1993; Noelle-Neumann, 1974; Zaller, 1996) in the sense that they posit that the media have a direct influence on the public by reinforcing people’s existing opinions or persuading them to support particular candidates or political parties.

I argue that pro-Beijing media affect behavior because they change receivers’ opinions. Because pro-Beijing media messages are slanted in favor of China and its preferred candidate, individuals receiving such information over time would become more positive toward China and its preferred candidate, which in turn should increase their likelihood of choosing the favored candidate. Thus, the first hypothesis is as follows:

Hypothesis 1 (direct media influence): On average, pro-Beijing media messages will nudge people to vote for China’s preferred presidential candidate and adopt more favorable attitudes toward China.

This line of reasoning contains three testable hypotheses. First, the effects of pro-Beijing media should be greater among voters who are less attentive to politics ex ante. Persuasion tends to be more effective when receivers have less information. The weaker the receivers’
priors, the more new information affects their beliefs. By contrast behavior will be less elastic when receivers are close to certain about the state \textit{ex ante} \cite{DellaVigna2010}. Research on campaign persuasion has shown that voters will discount new information relative to their existing stories of politically relevant information. Studies have also found that highly informed citizens are more resistant to changing their political views after exposure to state propaganda \cite{Geddes1989, Stockmann2011}. In short, the lower this inertia resistance, the greater the susceptibility of voters to alter their beliefs in the face of persuasion \cite{Zaller1992}. This leads me to the second hypothesis:

\textbf{Hypothesis 2 (political attentiveness)}: \textit{The effects of pro-Beijing media will be greater among voters who are less attentive to politics before exposure to pro-Beijing media messages.}

Additionally, the pro-Beijing media should be more effective in shifting behaviors among voters who think the information is credible because people’s inferences from a given message will depend on what they know about the credibility of the message source \cite{Chaiken1994, Lupia1998, Pornpitakpan2004}. Previous studies have shown that people confronted with information from a source known to be biased would account for this bias in their learning \cite{Chiang2011}. The third hypothesis is thus as follows:

\textbf{Hypothesis 3 (source credibility)}: \textit{The pro-Beijing media effects will be more pronounced among voters who think the pro-Beijing media provides credible information.}

Furthermore, every opinion is a marriage of information and predispositions \cite{Zaller1992}, and thus pro-Beijing media could differentially influence people with opposing pre-existing political preferences. When processing new information on hot cognition issues \cite[e.g., politics]{Kunda1990, Taber2006}, making them easily assimilate information congruent with their priors but discount, even counterargue, information that challenges their priors \cite{Ditto1992, Lord1979, Taber2006}. As a result exposure to the same political information may not converge but instead alter people’s beliefs in differential directions because they learn from the information differently in accordance with their political predispositions. Like other political media programs \cite[e.g., Levendusky, 2013]{Levendusky2013}, the pro-Beijing media could trigger and intensify such biased reasoning because of the media outlet’s slanted presentation of the news and its one-sided messages.

In particular, pro-Beijing media may have backfire effects among voters who are dismissive of China \textit{ex ante}. Taber and Lodge \cite{Taber2006} and Redlawsk \cite{Redlawsk2002} interpret backfire effects as a possible result of the process by which people counterargue preference–incongruent
information and bolster their preexisting views. If people counterargue unwelcome information vigorously enough, they may report opinions that are more extreme than they otherwise would have had. Some recent studies show evidence of backfire effects (e.g., Adena et al., 2015; Bail et al., 2018; Levendusky, 2013; Nyhan and Reifler, 2010); yet others yield opposite results (Guess and Coppock, 2018). Together, this leads to my fourth hypothesis:

Hypothesis 4 (prior political preferences): The pro-Beijing media will have positive effects among voters who are predisposed to be China-friendly but will have negative effects among those who are China-skeptical ex ante.

3 Political Landscape in Taiwan

Taiwan was an authoritarian regime from the time the Kuomintang (KMT) arrived on the island from mainland China in 1949 until its loss of the presidency in 2000. Through the enforcement of martial law and political machine, the KMT kept a powerful hold on the state and throughout the Cold War (Rigger, 2000). National elections were suspended in the name of national emergency arising from the confrontation with the CCP. Any perceived opposition to the KMT was considered illegal and repressed. The opponents operated under the informal rubric of "dangwai," or outside the party. In 1986, dangwai politicians founded the Democratic Progressive Party (DPP). Although this move technically violated martial law, the event went unpunished, and only ten months later, the KMT terminated martial law and allowed opposition parties to emerge (Fan and Feigert, 1988; Chao and Myers, 1998). Taiwan’s national legislative bodies were under complete reelection in 1992 and its first direct presidential election was held in 1996. The DPP’s electoral performance between 1986 and 2000, however, was stagnant because the KMT still preserved a large popular base and resource advantage (Greene, 2007; Rigger, 2000). The DPP won the presidency thanks to a divided KMT in the 2000 election, ending more than half a century of KMT rule on Taiwan.

The dominant cleavage in Taiwan’s presidential elections is organized around policy on Beijing. Accordingly, the political scene is divided into two camps (Schubert, 2004). Led by the KMT, the pan-Blue camp is friendlier to Beijing and believe that expanding economic ties with China is important for Taiwan’s continued economic dynamism. The pan-Green camp led by the DPP, by contrast, argues that increasing these ties threatens national sovereignty and security. The pan-Green camp thus adopts a more skeptical stance toward Beijing and advocates a Taiwanese national identity distinctive from the mainland. Relations with China dominate Taiwan’s domestic political discourse and form the main political and social cleavage separating the two major parties (Clark and Tan, 2012).
Despite the differences, a majority of Taiwan’s voters evades directly factoring in the choice of unification or independence, at least not immediately. Most voters consider an open-ended future of the relationship with the mainland as the best option of Taiwan, which can own the benefits of de facto independence (economic freedom and democratic self-government) without the risk of de jure independence (Chu, 2004; Rigger, 2001). Consequently, both political camps state a desire to maintain the status quo. According to Taiwan’s Election and Democratization Study, a continual large-scale survey research project, the share of independent voters in the population has steadily increased since 2011; in 2019, around 40% of voters are self-identified as nonpartisans, who tend to exhibit a moderate position on various issues germane to China-Taiwan relations (Wang, 2019).

The 2020 presidential election took place on January 11 to elect the president and all members of the legislature. The election had a turnout of 74.9%, up from 66% four years earlier and the highest among nationwide elections since 2008. Three major presidential candidates ran in the election: Tsai Ing-Wen of the DPP, who was elected in 2016 and sought a second term; Han Kuo-yu of the KMT, who was elected Mayor of Kaohsiung in 2018; and James Soong, who is the chairman of a third-party in the Blue camp. Tsai won the election with 57.13% of vote share. Han was the runner up with 38.6% of vote share; Soong came third with 4.26% of the vote.¹

4 Experimental Design

The experimental design is summarized in Figure 1. Prior to treatment assignment, I identify in a baseline survey conducted four weeks before the election those study participants who are already existing China Times (CT) consumers.² I exclude these existing consumers in the subsequent treatment assignment but follow them throughout the study because they serve as benchmarks to interpret the treatment effects.³ The existing consumers receive the same survey questionnaire as those who are not existing consumers. Next, I randomly assign the remaining participants to one of the three groups: (1) treatment group,

¹Given that the election was not a close one, this study was unlikely to affect the election outcome and thus I had no ethical concern. Besides, I show in a following section that the study did not decrease turnout, a practice deemed essential for any well-functioning democracy. The finding eases the concern that my experiment may demobilize people to vote.

²I identify existing China Times consumers by using a survey question asking respondents whether they read any of Taiwan’s four largest newspapers in Taiwan on a nearly daily basis. If participants answer no, they are in the experimental sample. If they answer yes, I ask them which newspaper(s) they read regularly. Those whose responses do not include China Times are in the experimental sample; those whose responses include China Times are not, and I call these participants existing consumers throughout the paper.

³I am cautious about using existing consumers as benchmarks to interpret the treatment effects because I do not measure their news consumption and so have no precise information on whether and how often they read The China Times.
members of which receive access to a website containing real political news from *The China Times*; (2) placebo group, in which people receive access to another website containing real entertainment news from *The China Times*; and (3) control group, in which people are subject to the media environment as in the status quo (i.e., receive no website; no exogenous source of news). I conduct the treatment assignment upon the completion of the baseline survey.

Figure 1: Overview of Experimental Design

Participants have website access during the two weeks leading up to the election (i.e., from December 28, 2019, to January 11, 2020). On December 28, 2019, participants receive my first email about the website.\(^4\) I incentivize participants to visit a website containing important daily news (see a screenshot of the invitation email in the Online Appendix). Participants are told that they will receive NT$150.00 (equivalent to $5.00) if they spend an average of three minutes per day browsing the website in the days leading up to January 11, 2020. I attach a user-specific hyperlink to the email for participants to access the website. The customized URLs not only ensure that people can access the website only through the hyperlink but also help me to identify each participant’s browsing activity on the website. In the following days, I send daily reminders to participants about the website. I disable the website link after the election and launch an endline survey the next day.

I note three points: first, I do not tell participants that they are randomly assigned to

\(^4\)A screenshot of the email can be seen in Figure SI-1
receive the website access; that is, they do not know their treatment conditions, thus no performance bias.\(^5\) Second, the experiment does not force participants to browse the website content but allows them to decide whether and how much they want to do so, which is more natural and closer to people’s media consumption behavior. Third, I choose to present the pro-Beijing news in the form of online newspapers instead of print ones for the following reasons: In Taiwan, more people acquire news from the Internet over time.\(^6\) The Internet has become a major source of political news for citizens, second only to television.\(^7\) In addition, using a tailored website allows me to measure individuals’ media exposure in a more precise and unobtrusive fashion; for example, I can measure whether (and how much) people are actually treated. Gerber, Karlan and Bergan (2009) distribute their treatment in the form of newspaper subscriptions, admitting that they cannot be sure that the newspapers were read after people received them. Although survey-based measures of media consumption are widely used in previous studies, they are plagued with questions about validity (Guess, 2015; Prior, 2013).\(^8\)

**The Pro-Beijing News Website** Over the course of the experiment, I update the website on a daily basis with real-time news articles from *The China Times*. I standardize the way to choose news articles. First, I select all news stories from the front page of *The China Times*.\(^9\) Second, I select all China-related news stories from the cross-strait-relations page of *The China Times*.

When participants click the hyperlink provided in the emails, they are redirected to the website’s homepage. Participants can click date icons on the homepage to access the news articles for a given publication date. For example, by clicking the date icon 2020-01-01, participants will enter a new webpage containing the news articles published on that date.

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\(^5\) Guarding against “demand effects”—cues in the setting that suggest to experimental participants what is expected of them—is important for experiments (Mummolo and Peterson, 2019). To limit the impact of demand effects, I undertake two precautions. First, instead of telling participants that this study is about the pro-Beijing media, they are told that the study is about voters’ opinions about political and societal affairs. This description could discourage participants from wondering what I intended to do. Second, I do not inform participants that they are randomly assigned to receive website access, preventing such information from affecting the behavior and attitudes of interest.

\(^6\) The Taiwan Communication Survey, a national survey, asks respondents to report their frequency of acquiring online news on a 4-point scale (never, seldom, sometimes, and often). In the 2003 wave, 26.5% reported that they often or sometimes do so; in the latest 2015 wave, the number increases to 74.2%.

\(^7\) In the latest 2015 Taiwan Communication Survey, 75.1% of respondents often or sometimes acquire political news from TV, and 65.2% of them do so on the Internet. See [http://www.crctaiwan.nctu.edu.tw/material/files/5358772016.pdf](http://www.crctaiwan.nctu.edu.tw/material/files/5358772016.pdf).

\(^8\) When benchmarking participants’ actual exposure to the website against their self-reported exposure, they indeed tend to overreport their news consumption. I will discuss this finding in a later section.

\(^9\) Newspaper readers are attracted to stories because of the content of the headlines or the placement of stories. Front-page stories are more likely to be read than articles buried near the back of the newspaper (Kahn and Kenney, 2002).
For the placebo website, I also update the website daily, selecting news articles from the entertainment pages. I ensure that the length of the news articles on the placebo website is similar to that on the treatment website.

An important choice in my design is to truthfully deliver the news source that produced each news article. I did this not only to avoid deception but also to promote external validity.

Figure SI-2 is a screenshot of the website’s front-page; I report the headline of each news article chosen from The China Times in Online Appendix A, followed by results from a text analysis of the news articles reported in Online Appendix B.

### 4.1 Browsing Behavior

I use Google Analytics to track participants’ browsing behavior on the website. One advantage of using this web analytics service is that participants do not need to install any software to produce the web traffic data. Note that I do not track their external browsing activities. Results show that 50.05% of treatment group participants visit the site during the two weeks after they receive the hyperlink. Among these participants, around 93% of them return to the site (i.e., 6.67% visit the site only once). For those who have session recordings, 74.94% of them spend an average of one minute or more per day on the site, and 44.16% spend an average of three minutes or more on the site. 88.5% of the visitors (i.e., visit at least once) complete the endline survey. Table 1 reports the mean and standard deviation of participants’ browsing behavior (both treatment and placebo).

<table>
<thead>
<tr>
<th>Panel A. Among all participants (in percentage)</th>
<th>Treatment Group (N=941)</th>
<th>Placebo Group (N=377)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visited the website at least once</td>
<td>50.05%</td>
<td>50.39%</td>
</tr>
<tr>
<td>Minimal Compliers</td>
<td>37.51%</td>
<td>40.58%</td>
</tr>
<tr>
<td>Full Compliers</td>
<td>22.10%</td>
<td>23.07%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B. Average browsing time (in minutes)</th>
<th>Treatment Group (N=941)</th>
<th>Placebo Group (N=377)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visited the website at least once</td>
<td>3.42</td>
<td>3.38</td>
</tr>
<tr>
<td>Minimal Compliers</td>
<td>4.41</td>
<td>4.08</td>
</tr>
<tr>
<td>Full Compliers</td>
<td>6.14</td>
<td>6.05</td>
</tr>
</tbody>
</table>

Note: Panel A reports the statistic with respect to all participants in the treatment (placebo) group. Panel B reports average browsing time of participants. Minimal Compliers is a term referring to cases in which an average of one minute per day spent visiting the site is the threshold value to define compliers. Full Compliers refers to the case in which an average of three minutes per day is the threshold value to define compliers.

For the placebo group participants, 50.39% of them visit the website at least once. Among those who visit the website, 80.52% spend at least an average of one minute per day browsing the website, and 45.78% spend at least an average of three minutes per day. These numbers are similar to that of the treatment website.
Figure SI-3 reports the distribution of average browsing time among participants who visit the news website (both treatment and placebo). I also report the browsing activities across individual and time. In Figure SI-4, a red (white) rectangle means that a participant accesses (does not access) the news site on that date. The figure excludes participants who never visit the site. Finally, I show that compliers seem distributed evenly among partisan lines (more details in a later section), implying that participants appear not to live in an echo chamber in terms of their online news consumption (see Dvir-Gvirsman, Tsfati and Menchen-Trevino (2016); Garrett (2009); Guess (2020)).

4.2 Outcome Variables

I examine three outcome variables: vote decision, candidate evaluation, and opinion about China. These variables are measured in both survey waves. Below, I describe how these variables are measured and coded. Table SI-2 in Online Appendix C reports summary statistics of the variables.

**Vote decision** I measure participants’ baseline vote intent and realized vote choices in the election. In the baseline survey, participants are asked to name the presidential candidate for whom they planned to vote (including the undecided option). I create a variable coded 1 for those whose answer is Han and 0 otherwise to indicate whether a participant intended to vote for China’s preferred presidential candidate before the experiment. In the endline survey, I ask participants who report they voted in the election: "Who did you vote for the presidential candidate (including the void ballot option)?" I create another variable coded as 1 if participants report that they vote for Han in the election and 0 otherwise. By subtracting the baseline from the endline score, the variable "Change in Vote for Han" is the shift in vote for Han from the baseline to endline survey.

**Candidate Evaluations** The feeling thermometer, a standard measure, is used to gauge participants’ candidate evaluations. I ask participants in both waves: "We would like to know how you feel about the presidential candidates in the 2020 Election. Please express your feelings on a scale of 1 to 10, where 1 means very unfavorable and 10 means very favorable." Participants are asked to rate each of the three candidates. In the main analysis, I focus on the comparative feelings toward Han and Tsai, the two main candidates. I subtract Tsai’s score from Han’s score so that higher scores represent more positive evaluations of Han. The variable "Change in Candidate Evaluation" is the shift in the Han minus Tsai feeling thermometer score from the baseline to endline survey (-18 to 18; positive values indicate Han became more favorable).
Opinions about China  I assess participants’ attitudes toward China-related issues by asking the following five questions in both waves. To mitigate the concern about multiple testing, I create an index by averaging survey responses to the five questions in each wave (alpha=0.73 in baseline and 0.80 in endline). Before creating the index, I recode the responses in a way such that higher scores indicate more favorable to China. I use the index in the main analysis and report the separate regression results of each survey question in Online Appendix E. The variable "Change in Pro-China Index" is the shift in the index score from the baseline to endline survey, with positive values indicating China became more favorable to participants.

<table>
<thead>
<tr>
<th>Variables (scales)</th>
<th>Survey Questions</th>
</tr>
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<tbody>
<tr>
<td>Favorability of China (1–10)</td>
<td>We would like to know how you feel about China. If 1 means very unfavorable and 10 means very favorable, what is your general feeling toward China? (1=very unfavorable; 10=very favorable)</td>
</tr>
<tr>
<td>China Threat (1–3)</td>
<td>Do you think China’s military is a major threat to Taiwan’s security, a minor threat, or not a threat? (1=Major threat, 2=Minor threat, 3=No threat)</td>
</tr>
<tr>
<td>Trade with China (1–5)</td>
<td>Some people claim that we should expand our economic relationship with China, but others advocate reducing that relationship. What do you think we should do? (1=Greatly reduce the economic relationship; 2=Somewhat reduce the economic relationship; 3=Current economic relationship is about right; 4=Somewhat expand the economic relationship; 5=Greatly expand the economic relationship)</td>
</tr>
<tr>
<td>Hong Kong Protest (1–5)</td>
<td>How much do you support the ongoing protest in Hong Kong? (1=Do not support at all; 2=Somewhat do not support; 3=Neutral; 4=Somewhat support; 5=Strongly support)</td>
</tr>
<tr>
<td>Radical Behavior (1–5)</td>
<td>To what extent do you agree with the following statement: When the Hong Kong government fails to listen, protesters are justified in using radical tactics. (1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly agree)</td>
</tr>
</tbody>
</table>

Political Predispositions  To test whether the pro-Beijing media has differential effects on participants with various political priors, I measure participants’ partisan identities in the baseline survey. They are asked: “Of the following political parties, which party do you usually support?” The answer of a participant who names a party is taken to be the party identification; if a participant does not answer unequivocally, then that participant is asked, “To which political party are you more inclined?” If the participant names a party, that answer is taken to be the party identification.

Following most existing research on Taiwanese politics (e.g., Tsai (2017)), I define pan-Blue participants as those who either support or lean toward the following parties: KMT, New Party, or People First Party. Pan-Green participants are defined as those who either support or lean to the following parties: DPP, Taiwan Solidarity Party, Green Party, or New Power Party. Independent participants, or nonpartisans, are those who neither support nor lean toward any parties, or those who support or lean to the following two parties: Taiwan People’s Party or Tree Party, whose positions on Beijing are ambiguous.

This operationalization well captures participants’ pretreatment opinions about China. Figure SI-5 reports the mean scores of the five questions related to China by partisan identities, showing that pan-Blue participants have significantly more favorable attitudes toward China a priori, followed by independent and then pan-Green participants. I also regress
people’s baseline scores of the China Index on their personal characteristics (age, education, income level, residence location, and ethnic origin, and partisanship), finding that partisanship is the strongest predictor, at least four times as much as other demographic factors.

4.3 Logistical Details

Recruitment I commission Qualtrics to recruit Taiwanese citizens eligible to vote in the 2020 election (i.e., 20 years old and above) to participate in a two-wave online survey. People opt in to participate in both waves and can leave the surveys any time. The provision of the website and monetary rewards is never mentioned during the recruitment, assuaging concerns about sample selection based on participants’ interests in news or financial incentives a priori.

The baseline survey adopts a quota sample based on age, gender, and partisanship. In particular, 30% of the experimental sample are pan-Blue participants, another 30% are pan-Green participants, and the remaining 40% are independents. The partisan distribution in the sample is consistent with that in the population. In the survey, I measure participants’ baseline, pretreatment outcomes, and background information, including demographic characteristics, partisanship, past voting experience, political interest and engagement in the 2020 election, and media diet. The information serves as the basis for balance checks and the criteria for heterogeneity analysis.

I successfully recruit 2,077 participants who complete the baseline survey. A total of 195 of the participants are existing consumers of The China Times, and 1,882 of them are not.

Treatment Assignment After concluding this survey, I perform a blocked randomization based on partisanship for the treatment assignment. This practice in expectation can reduce sampling variability, as people in the same block are expected to have similar potential outcomes. It also ensures that a specific proportion of subgroups are available for heterogeneous analysis (Gerber and Green, 2012, 71-77).

I first exclude the 195 participants who are existing China Times consumers from the sample, then classify participants into one of the three partisan blocks (i.e., pan-Blue, pan-Green, and independent). In each block, I randomly assign half the participants to the treatment group, 30% to the control group, and 20% to the placebo group. Together, among the 1,882 experimental participants, 941 are in the treatment group, 564 in the control group, and 377 in the placebo group.
Endline Survey In the week following the election, I invite all participants to the endline survey and successfully recontacted 949 of them (recontact rate = 45.69%). A total of 861 of the 1,882 experimental participants in the baseline survey completed the endline survey (recontact rate = 45.74%), and 88 of the 195 nonexperimental participants in the baseline survey completed the endline survey (recontact rate = 45.12%). The attrition rate does not differ by treatment conditions (p-value = 0.614). The 949 participants constitute the main sample throughout this study.

Attrition and Balance Check Table 2 reports t-tests for selective attrition and ANOVA tests for sample balance across treatment conditions. Overall, participants who have completed baseline and those who completed endline are statistically indistinguishable from each other in terms of demographic characteristics. In addition, participants from the three experimental conditions are not jointly different from each other across nearly all background characteristics, even after attrition (the exception is past voting behavior in 2016). Figure SI-7 also confirms that the baseline outcome scores are balanced across conditions.

To further assuage the concern about sample selection bias, I also examine whether the interaction of background covariates and assignment to treatment predicts attrition. Figure SI-8 shows no evidence that either treatment (i.e., political news website and entertainment news website) led to a severe sample selection bias in terms of the observable characteristics of individuals who responded to the endline survey.

5 Results

I first conduct descriptive analyses of the data. Figure 2 reports the means of outcome scores for each experimental condition.11 Results reveal two patterns: (1) the treatment group is significantly different from both the control and placebo groups; (2) the control group and placebo group have no discernible difference across all three outcome variables. I use a one-way ANOVA to test the mean differences of these groups. For vote decisions, I reject the null hypothesis that the group means are identical [F (2, 735) = 7.50, p=0.0006]. For candidate evaluations, the null hypothesis that changes in candidate evaluations are indistinguishable across groups is also rejected [F (2, 856) = 6.30, p=0.0019]. Finally, experimental participants do not hold jointly identical opinions about China before and after the experiment [F (2, 856) = 8.27, p=0.0003]. The results suggest that the treatment had a direct influence on behavior and opinions.

11 Note that the outcome variables in the main analysis are change scores rather than endline scores; I show in Online Appendix that my results are identical to results using endline scores as the outcome and baseline scores as the control.
Figure 2: Changes in Mean Outcome Scores by Experimental Conditions

![Graphs showing changes in mean outcome scores for Vote for Han, Candidate Evaluations, and China Index Scores across Control, Placebo, and Treatment conditions.]

Note: The left panel plots the means of individual-level changes in vote decisions in Han’s favor (N=738). The middle panel is changes in candidate evaluations in Han’s favor (N=861). The right panel is changes in mean scores of the China Index (N=861). The outcomes are change scores from the baseline to endline survey.

I examine the differences in a regression framework. For simplicity and greater statistical power, the following analysis pools the control group with placebo group together because they do not differ in any outcome dimension (see Online Appendix D for results comparing control and placebo group). As I show below, the placebo group allows me to address multiple concerns about the results and to evaluate possible mechanisms underlying the treatment effect.

Both intent-to-treat (ITT) and treatment-on-the-treated (TOT) effects are estimated in this paper. ITT refers to the effects of treatment assignment on outcomes by comparing outcomes of participants assigned to treatment and control, regardless of whether participants are actually treated. In this study the ITT estimates refer to the effects of providing access to the pro-Beijing website, which average the effects on compliers and noncompliers. The TOT estimates, by contrast, refer to the effects on those who spend some time browsing the pro-Beijing news website. I expect that TOT effects are larger than ITT effects.

To estimate ITT, I regress outcome scores on treatment status indicator. For TOT effects, I use two-stage least squares estimand, widely used in field experiments following the approach of Angrist, Imbens and Rubin (1996). Because website access is randomly assigned, I use it to instrument participants’ exposure to the news website (first stage) and then use the exogenous variation in exposure to estimate its effects on outcomes (second stage). The TOT estimates are unbiased when exclusion restriction and monotonicity are met.

For TOT, I use two different threshold values to distinguish compliers and noncompliers. I define participants who spend an average of three minutes or more browsing the website during the two-week window as compliers (Full Compliers). A less strict definition of compliers is that those who spend an average of one minute or more are considered compliers.
Become Prone to Vote for Beijing’s Preferred Candidates  Participants in the treatment group become more likely than those in the control group to vote for China’s preferred presidential candidate Han (p-value = .001). The ITT effect is estimated between 0.06 and 0.183 for a mean change in Vote for Han of 0.144, on a scale coded between -1 and 1. This represents a 0.28 standard deviation difference between the two groups, a nontrivial difference. I also find that the effect is significantly larger among those who have not made their vote decisions in the baseline.

I next turn to TOT effects. Both Table 3 and Figure 3 show that the estimated TOT seems larger than the estimated ITT. Comparing the coefficient sizes of the two complier cutoffs shows that the effects are more pronounced among those who spend more time on the website. Some evidence indicates that existing consumers become slightly willing to vote for Han in the election, but the estimate is not precise enough to reject the null hypothesis.

Online Appendix F provides evidence on how the pro-Beijing media moves votes. It shows that the pro-Beijing media mainly persuade those undecided on whom to vote for in the baseline survey to choose Han rather than deter voters from their vote intention.

Figure 3: Coefficient Plot: ITT, TOT, and Existing Consumers

Note: Regression estimates of intent-to-treat effects and treatment-on-the-treated effects with 95% and 90% confidence intervals, respectively. This plot reports the estimated treatment effects on vote decisions, candidate evaluations, and beliefs on China. ITT is estimated by comparing outcomes of the treatment group and control group (control + placebo participants). TOT is estimated by two-stage least squares regression, in which the treatment assignment indicator is used to instrument for compliers. The exogenous variation in compliers is then used to estimate the relationship between exposure to the pro-Beijing news (compliers) and the three outcome variables. Existing Consumers refer to those who already read The China Times regularly on a daily basis. The estimate for them is the mean differences of baseline and endline.

Change Candidate Evaluations in Han’s Favor  Evidence on candidate evaluations is consistent with the findings in vote decisions, which may not be a surprise in that people’s feel-
ings about candidates are often proximate to their vote choices. Table 3 and Figure 3 show that treatment group participants become more positive toward Han than those in the control group (p-value = .001). The ITT effect is estimated to be between 0.36 and 1.24 for a mean change in Candidate Evaluations of 0.056. This means that the two groups differ by 0.24 standard deviation. The estimated TOT is larger than the estimated ITT. By contrast no evidence shows that existing consumers become more favorable to Han during the study period. The coefficient is almost zero and has a wrong sign. The Online Appendix reports separate regression coefficients on each of the three presidential candidates’ feeling thermometers. On average, the treatment had a positive effect on evaluation of Han, negative effect on Tsai, and indiscernible effect on Soong.

**More favorable toward China**  The treatment group becomes more positive toward China in the endline than the control group does (p-value = .001). ITT is estimated to be between 0.12 and 0.34 for a mean change in the China Index of 0.11, which represents the difference in the two groups by a 0.27 standard deviation in the endline. TOT estimates are larger than ITT estimates. The comparison of TOT estimates using different complier cutoffs once again confirms that the positive effects are more noticeable among those more engaged in the treatment website. For the existing consumers, weak evidence shows that their opinions about China become more approving in the study period.

Online Appendix E reports separate regression results on the five China items, showing that the treatment group participants at the end of the experiment have more positive feelings toward China, become less likely to view China as a threat, become more eager to have trade with China, and become more negative to the 2019–2020 Hong Kong Protests than control group participants. The effect size of TOT seems larger than ITT.

One more issue can bolster the results. Around mid-December 2019, the Anti-Infiltration Act became a central issue in the presidential election campaign. The DPP claims that the passage of the act is necessary to regulate the potential Chinese influences on Taiwan’s domestic politics. The pro-Beijing media publishes several news articles against such a proposition (see Online Appendix A). I thus evaluate whether the opinions of participants in the treatment group and control group differ on this new act. I solicit supports for the act only in the endline because when the baseline survey was in the field, this act had not received media attention. This is also the reason I did not preregister this question. The question reads as follows:

*The anti-infiltration bill was passed by the legislature on Dec. 31, 2019. Some people think the bill would further hamper cross-strait exchanges, but others claim that the bill is a safety net for our democracy. We would like to ask how strongly you support the bill.*
The variable is measured on a 5-point scale, ranging from "very supportive" (1) to "not supportive at all" (5). It has a mean of 3.004 and a standard deviation of 1.201. Results show that (not reported) the treatment group participants were less supportive of the Anti-Infiltration Act than the control group participants (p-value = .001). In terms of ITT, the two groups differ by a 0.226 standard deviation.

**Conditional Treatment Effects** At the outset I expected that the treatment would have stronger effects among those politically inattentive than among those who are attentive (H2). Figure 4 shows that the effects are indeed significantly greater among those who less care about the election outcome (or who are less interested in the election campaign) prior to the experiment. By contrast the effects are indistinguishable from zero among those who are already politically informed.\(^\text{12}\)

Figure 4: Experimental Effects Conditional on Political Engagement

![Figure 4](image)

I also expected that the treatment would have stronger (weaker) effects among those who perceive (do not perceive) *The China Times* as a credible media outlet (H3). Respondents in the endline survey are asked how much they agree that *The China Times* is a red media. This variable is used as a proxy for participants’ perceptions of *The China Times*’ credibility. Figure 5 indicates that the treatment effects are weak and negligible among participants who view *The China Times* as a CCP-aligned media outlet. In contrast, the effects are stronger among those who disagree with this statement.

**News Content or News Source?** One may worry that the results are driven by news source rather than news content. The political news on the website includes information about the news source, so participants know the news articles are from *The China Times*; thus,\(^\text{12}\)

\(^{12}\)I use several survey questions to measure people’s political awareness or engagement, finding that the results are largely robust to all these different measures, including the frequency of sharing political news on social media, the frequency of acquiring news in the mass media, and the amount of time spent acquiring election news the previous week. See the wording of the survey item and results in the Online Appendix.
they may modify their beliefs based on the source cue. The placebo website helps me to address this concern. Because the source of the entertainment news is also from The China Times, significant differences in outcomes across the treatment group and the placebo group participants suggest that the news source, which holds constant, is not the driver of the results. I reanalyze the data by comparing outcomes of treatment group and placebo group, finding that the main results are still robust (see Figure 6). I also estimate the complier average causal effect, that is, effects among compliers.

Figure 6: Coefficient Plot: ITT and CACE (Treatment vs. Placebo Group)

Note: Estimated intent-to-treat effects and complier average causal effects, with 95% and 90% confidence intervals, respectively. I estimate ITT effect by comparing outcomes of the treatment and the placebo group (placebo group is the baseline group). I estimate CACE by comparing outcomes of the treatment and the placebo group, conditional on compliers. Compliers are defined as those who spend an average of three minutes per day during the experiment period. In mathematical terms, CACE = E(Y1-Y0 | Complier=1).

Misreporting Vote Choices? One may worry that participants hide their real vote choice in the survey. Even if I cannot know which people misreport their vote choice, I use a list experiment to test whether participants in the aggregate hide their choices. The list experiment is designed in the following way: all participants in the endline survey are randomly assigned to two groups and are provided with a list of things that they may have done.
The list for the control group contains four baseline items (watched movie in a theater, bought Taiwan Lottery tickets, gave money to a charitable organization, and travelled to a foreign country). The treatment group receives a different list that includes the same baseline items plus a sensitive one: “After the election outcome came out this time, I hid my true vote choice when asked whom I voted for.” All participants are then asked to tell how many of these things (instead of which thing) on the list they have done. Figure 10 shows that the two groups are indistinguishable in terms of the item counts (estimate = -0.030 [-0.188, 0.128]; N=949). I also perform a subgroup analysis of the pan-Blue participants, who may misreport support for the winner (Wright, 1993) but find no evidence that these participants on the aggregate level had been deceptive about their vote choices (estimate = -0.069 [-0.355, 0.217]; N=300).

6 Effect Heterogeneity

This section reports the results of subgroup analyses by partisanship to test my hypothesis that the pro-Beijing media has heterogeneous effects on people with opposing priors.

6.1 Heterogeneous Effects by Political Predispositions

Figure 7 reports both ITT and TOT estimates with their corresponding confidence intervals. Consistent with the effect heterogeneity hypothesis, the positive treatment effects occur in the pan-Blue and independent samples. The effects appear slightly stronger for Independents, which is consistent with the claim that nonpartisans are more influenced by additional information received. For pan-Blue participants, the treatment effects indicate that exposure to the pro-Beijing news can reinforce their preexisting beliefs.

By contrast a backfire effect is found in the pan-Green sample. The pro-Beijing media moves pan-Green participants’ feelings about Han and opinions about China downward. Both ITT and TOT estimates on pan-Green participants’ vote decisions are small and close to zero; this is likely because 80.6% of them already intended to vote for Tsai in the baseline survey so the glass ceiling limits the treatment effects. In contrast only 52.9% of pan-Blue participants in the baseline survey intended to choose Han in the election (See Online Appendix E and the conclusion section for more discussion). Online Appendix G reports the regression results of the subgroup analyses.
Figure 7: Heterogeneous Treatment Effects by Partisanship

Note: ITT and TOT estimates on outcome variable with corresponding 95% and 90% CIs, respectively. I conduct three subgroup analyses for each outcome variable. Pan-blue voters are those participants who report in the baseline survey that they either support or lean toward the following parties: KMT, New Party, Party First Party. Pan-green voters are those participants who report in the baseline that they either support or lean toward the following parties: DPP, Taiwan Solidarity Party, Green Party, New Power Party. Independent voters are those participants who claim that they are not inclined to any political parties or those inclined toward Taiwan People’s Party or Tree Party. Estimates are drawn from people who complete both survey waves.

6.2 Why Heterogeneity?

I demonstrate that motivated political reasoning may account for the effect heterogeneity observed among partisans. If biased reasoning is the main mechanism driving the results, participants with opposing partisan attachments should exhibit differential cognitive and emotional reactions to the persuasive messages. In the endline survey, I ask a battery of questions measuring individuals’ reactions to the news articles on the website to which they have access. I present the questions only to participants in the treatment and placebo groups who report that they browse the website that they were invited to visit.

Quality and Argument Strength  The first set of questions asks participants to rate the overall quality and argument strength of the news articles that they read on the website.\(^\text{13}\) These questions serve to test whether people evaluate like-minded arguments as stronger and more compelling than opposing arguments (Lodge and Taber, 2013). I expect that in the treatment group, pan-Blue participants have more positive evaluations of the quality and argument strength of the news articles than pan-Green participants.

\(^{13}\)For the Quality question, I ask participants: “What do you think of the overall quality of the news articles you read on the website?” We measure this question on a seven-point scale, where 1 refers to extremely poor quality and 7 refers to extremely good quality. For the question on Argument Strength, I ask participants: “Generally speaking, how weak or strong do you think the argument was in the news articles you read. Again, please use the 7-point scale.”
**Emotion and Reactance**  Emotion has received growing scholarly attention in the study of motivated political reasoning. Recent studies find that anger is nearly alone in motivating individuals to engage in selective information processing (Hasell and Weeks, 2016; Suhay and Erisen, 2018). People experience anger when their values (Mullen and Skitka, 2006) or political opinions (Redlawsk, 2002) are threatened. Irritation then causes people to lean on their prior beliefs and respond in a hostile manner toward ideas that undermine them (Lazarus, 1991).

I ask participants how the news articles they read on the website make them feel. I measure four emotions and use them to create two variables.\(^{14}\) Specifically, Positive Emotion is the average of the scores of participants’ responses to two feelings items—hope and enthusiasm—related to their positive feelings to the news articles. Negative Emotion is the average scores of participants’ responses to two feeling items—anger and disgust—related to their negative feelings to the news stories. I expect that pan-Blue participants feel more positive toward the pro-Beijing news than pan-Green participants.

Traditional psychologists have long found that when people feel someone or something is trying to take away their choices or limit the range of alternatives, they tend to exhibit “reactance” by adopting or strengthening a view contrary to what was intended (Brehm et al., 1966). I solicit participants’ reactance scores using the following questions developed by Dillard and Shen (2005):

- The news reports threatened my freedom to choose candidates.
- The news reports tried to make a decision for me.
- The news reports tried to manipulate me.
- The news reports tried to pressure me.

Participants are asked to use 1–5 to express the degree to which they agree with the statements, where 1 means strongly disagree and 5 means strongly agree. I create the variable Reactance by averaging their responses to the four questions, with higher values representing higher reactance. Among those in the treatment group, pan-Green participants should express higher reactance scores than pan-Blue participants.

Figure 8 reports mean scores with 95% CIs of participants’ cognitive and affective reactions to pro-Beijing news articles. Results show that despite viewing the identical news, pan-Blue participants have more positive cognitive responses and positive affects to the

\(^{14}\) The question reads as follows: “Generally speaking, how do the news articles you read on the website make you feel? Please rate your feelings about the news articles on a scale from 1 (feel no emotion at all) to 7 (feel emotion very strongly).”
political news than pan-Green participants. Both cognitive and emotional responses are "partisan," that is, in a direction consistent with how the treatment shifts the attitudes and behavior of the partisans in this study.

Figure 8: Cognitive and Affective Reactions to Political News

(a) Quality of News Reports  
(b) Argument Strength

(c) Positive Feeling  
(d) Negative Feeling  
(e) Reactance

Note: These plots show the differences in mean scores between pan-Blue and pan-Green respondents exposed to the treatment website for their cognitive and emotional reactions to the news articles on the site. The bars indicate 95% CI. The plots also report the results of Wilcoxon test that compares group means. *** p < 0.001, ** p < 0.01, * p < 0.05

A Placebo Test One can argue that the differential cognitive and emotional reactions by partisanship are driven by news source rather than news content because participants may have known where The China Times stands relative to other media outlets. Cases can be made that pan-Green (pan-Blue) participants have more negative (positive) responses to the news not because the content of the slanted news is inconsistent (consistent) with their priors but because the news is from The China Times (See Baum and Gussin (2008) in the U.S. context).

To address this alternative explanation, I focus on the placebo group participants. If news source rather than news content is the driver of partisans’ differential reactions, pan-Blue and pan-Green participants in the placebo group should also exhibit differential cog-
nitive and emotional reactions to the news articles because the articles are also from *The China Times*. Figure 9 shows that this is not the case because the partisan pattern observed in the treatment group disappear in the placebo group. Partisans in the placebo group have similar cognitive reactions to the entertainment news, so do their affective reactions (except for negative emotions). Since the news source holds constant across groups, the lack of partisan reactions in the placebo group suggests that the news source does not trigger biased information processing.

Figure 9: Cognitive and Affective Reactions to Entertainment News

(a) Quality of News Reports  
(b) Argument Strength

(c) Positive Feeling  
(d) Negative Feeling

(e) Reactance

*Note:* These plots show the differences in mean scores between pan-Blue and pan-Green respondents exposed to the placebo website for their cognitive and emotional reactions to the news articles on the site. The bars indicate 95% CI. The plots also report the results of Wilcoxon test that compares group means. *** p < 0.001, ** p < 0.01, * p < 0.05, ns p > 0.05

### 7 Conclusion

This study offers the first field experiment that examines the impact of pro-Beijing media on voter behaviors and opinions during a presidential election. The evidence yields three major findings. First, the pro-Beijing media messages are capable of swaying Taiwanese
voters, one of the most important targets by the Chinese government, in the intended di-
rection. More generally, political context seems to play an important role in determining
the effectiveness of China’s information operations abroad. Second, the pro-Beijing media
exert differential effects on voters with opposing political priors. Third, the effects seem me-
diated by voters’ cognitive and emotional reactions to the political news received. In sum,
because Taiwan is not the only case that China intends to wield its influence using co-opted
friendly media, what China does and how Taiwan reacts have ramifications for citizens in
Hong Kong, Australia, and even the United States.

The research findings are a contribution to the existing literature and theorizing on the
potential backfire effects of exposure to dissimilar political information. Contrary to some
recent evidence, which finds exposure to opposing views to have no impact, and in line with
other studies, my study shows that backfire effect is not the exception. Extending past work
by incorporating people’s evaluations of the accessed articles, the backfire effect found in
this study seems to have its trace from people’s cognitive and emotional reactions to the
articles.

In addition, this study also makes a contribution to the growing body of work that uses
behavioral data to study people’s attitudes and behavior upon media exposure. Rather than
relying on a forced exposure design, I incentivized exposure and accounted for compliance.
Rather than asking participants to self report exposure, I tracked their actual exposure pat-
terns on the news website. My research design combining systematic experimental treat-
ment, online traces, and surveys pre- and post-experiment is most apt to accurately and
precisely documenting the existence (or rather lack thereof) of pro-Beijing media effects.

People have more to learn about the effects of pro-Beijing media than can be revealed in a
single experimental study. I hasten to note the scope of my evidence. First, the reader must
be cautious in generalizing my findings to any broad inference because the experimental
results may depend on several features of the 2020 Taiwanese presidential election. The
election may be unique because Han is a nontraditional presidential candidate of the KMT.
My survey data shows that many pan-Blue partisans seem less determined in this election to
make up their minds. This would give this experiment more room to sway their candidate
preferences and choices. Specifically, among the experimental participants, the odds of
being undecided in the baseline survey for pan-Blue voters is 2.32 times that of pan-Green
voters, holding personal characteristics constant. Further evidence of this is that among
those who selected the KMT presidential candidate in 2012, nearly 35% report that they are
undecided and only 37.7% report they would vote for Han in the baseline survey. In stark
contrast among those who voted for the DPP presidential candidate in 2012, only 15.8% are
undecided and 75.4% decided to choose Tsai Ing-wen in the baseline survey.\textsuperscript{15}

Second, more research should be conducted in different countries using field experiments to evaluate whether my findings are replicable in countries with similar political context. In the existing literature on media persuasion using a field experiment during elections, virtually all evidence is from the United States and Western European countries. More evidence beyond these countries is clearly needed.

\textsuperscript{15}As to participants’ (self-reported) voting behavior in 2012, apart from those who selected either the KMT or DPP presidential candidates discussed above in the main text, 82 participants say that they voted for the third-party candidate; 354 participants did not vote; 268 participants were under 20 in 2012 and ineligible to vote; and 253 participants no longer remember for whom they voted in 2012.
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## Tables and Figures in the Main Text

### Table 2: Summary Statistics, Attrition, and Balance Tests

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<th>Sample and Attrition</th>
<th>Treatment Balance</th>
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<td>Endline Mean (SD)</td>
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<td>0.587 (0.493)</td>
<td>0.599 (0.490)</td>
</tr>
<tr>
<td>Vote in 2012</td>
<td>0.579 (0.494)</td>
<td>0.591 (0.492)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.647 (0.478)</td>
<td>0.653 (0.476)</td>
</tr>
<tr>
<td>Religion</td>
<td>0.204 (0.403)</td>
<td>0.209 (0.407)</td>
</tr>
<tr>
<td>Newspaper</td>
<td>0.450 (0.498)</td>
<td>0.446 (0.497)</td>
</tr>
<tr>
<td>TV Program</td>
<td>2.763 (0.995)</td>
<td>2.776 (0.993)</td>
</tr>
<tr>
<td>Preferences</td>
<td>(0.917)</td>
<td>(0.917)</td>
</tr>
<tr>
<td>Control</td>
<td>0.300 (0.458)</td>
<td>0.302 (0.459)</td>
</tr>
<tr>
<td>Placebo</td>
<td>0.200 (0.400)</td>
<td>0.190 (0.393)</td>
</tr>
<tr>
<td>Treatment</td>
<td>0.500 (0.500)</td>
<td>0.508 (0.500)</td>
</tr>
<tr>
<td>Obs.</td>
<td>2077</td>
<td>949</td>
</tr>
</tbody>
</table>

Note: Mean level of each characteristics are reported in column 1 for all respondents who completed the baseline survey (and corresponding standard deviation in parentheses). Column 2 for respondents who completed the endline survey (standard deviation in parentheses). For each characteristic, a t-test is conducted against the null hypothesis that respondents who have completed baseline and those who have completed endline do not differ from each other in terms of this characteristic. Column 3 reports the p-value for each test. Column 4 for endline participants who are China Times readers, column 5 for endline participants in the control group, column 6 for endline participants existing in the placebo group, and column 7 for endline participants in the treatment group. For each characteristic, an ANOVA test is conducted against the null hypothesis that participants in the control, placebo, and treatment groups do not jointly differ from each other in terms of this characteristic. Column 9 reports the corresponding p-value for each test.
Table 3: Treatment Effects on Behavior and Attitudes

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Vote for Han</th>
<th>(2) Candidate Evaluation</th>
<th>(3) Pro-China Index</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intent-to-treat</strong></td>
<td>0.122***</td>
<td>0.805***</td>
<td>0.233***</td>
</tr>
<tr>
<td></td>
<td>(0.031)</td>
<td>(0.226)</td>
<td>(0.057)</td>
</tr>
<tr>
<td><strong>Panel B: Two-stage estimates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment-on-the-treated</td>
<td>0.168***</td>
<td>1.116***</td>
<td>0.323***</td>
</tr>
<tr>
<td>(Minimal Complier)</td>
<td>(0.043)</td>
<td>(0.310)</td>
<td>(0.079)</td>
</tr>
<tr>
<td>Treatment-on-the-treated</td>
<td>0.280***</td>
<td>1.880***</td>
<td>0.543***</td>
</tr>
<tr>
<td>(Full Complier)</td>
<td>(0.072)</td>
<td>(0.520)</td>
<td>(0.132)</td>
</tr>
<tr>
<td>Observations</td>
<td>738</td>
<td>861</td>
<td>861</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

| Panel C: Mean (SD)           |                  |                           |                     |
| Nonexisting consumers        | 0.144            | 0.056                     | 0.117               |
| (experimental sample)        | (0.431)          | (3.351)                   | (0.848)             |
| Control Group                | 0.077            | (0.323)                   | (0.010)             |
|                              | (0.410)          | (2.755)                   | (0.614)             |
| Placebo Group                | 0.087            | (0.396)                   | 0.015               |
|                              | (0.385)          | (2.952)                   | (0.723)             |
| Treatment Group              | 0.203            | 0.453                     | 0.232               |
|                              | (0.452)          | (3.750)                   | (0.986)             |
| Existing consumers           | 0.078            | (0.102)                   | 0.050               |
|                              | (0.532)          | (3.760)                   | (0.729)             |

Note: This table reports regression coefficients with robust standard errors on outcomes variables. Column 1 for changes in vote for Han. Column 2 for changes in candidate evaluations. Column 3 for changes in the China Index scores. The index is generated by averaging the scores of five variables related to opinions about China. I record all variables such that higher values mean China's preferred behavior and attitudes. Panel A shows ITT estimates, where I regress outcome variables on the treatment status indicators. Panel B shows TOT estimates via two-stage regressions, where I use the treatment assignment indicator to estimate a first stage regarding whether participants are compliers. Panel C shows the means and standard deviations of the three outcome variables for the experimental sample and the nonexperimental sample. All statistics in the table are based on participants who complete both surveys.
Figure 10: List Experiment Embedded in the Endline (N=949)

Note: The experiment evaluates whether my participants provide deceived self-reports of their real vote decision at the aggregate level. The dots represent point estimates and bars the corresponding confidence interval at .05 level. The figure plots the model and data (distribution of observations) together.
Supplementary Information

- Screenshot of the Invitation Email: Figure SI-1
- Screenshot of the Treatment Website’s Front Page: Figure SI-2
- Distribution of Average Browsing Time: Figure SI-3
- Panel View of Browsing Behavior across Individual and Time: Figure SI-4
- Baseline Mean Scores of Beliefs on China by Political Priors: Figure SI-5
- Headlines of News Articles: Table SI-1
- Sentiment Analysis: Figure SI-6
- Summary Statistics of Key Variables: Table SI-2
- Baseline Outcome Scores by Experimental Conditions: Figure SI-7
- Analysis of Participation in the Endline Survey: Figure SI-8
- Comparison of Placebo Group and Control Group: Table SI-3
- Comparison of Placebo Group and Control Group on Pro-China Index: Table SI-4
- Regression Results of China-Related Variables (Plot): Figure SI-9
- Regression Results of China-Related Variables (Table): Table SI-5
- Vote Intent among Experimental Participants: Table SI-6
- Vote Intent among Experimental Participants completing the Endline: Table SI-7
- Choice Change among Han Voters: Table SI-8
- Conversion, Activation, and Reinforcement: Table SI-9
- Choice Change among Independents: Table SI-10
Dear {xxxxxx}:

Hello, we are a group of researchers from the University of Texas, U.S.A. We would like to let you know that you could receive an extra NT$150 bonus by browsing our news website. We encourage you to visit the website to get informed about the important news!

Enter the Website

Thanks again for participating in our research

Sincerely,
Toluna and University of Texas
Politics & Current Affairs

Welcome! We choose the most trending news for you

Reminder: You can receive NT$150 if you spend an average of three minutes per day browsing this website before our next survey. To ensure your visits are recorded, use the link provided to access this website.

Today’s News

<table>
<thead>
<tr>
<th>Jan. 11, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent News</td>
</tr>
<tr>
<td>Jan. 6, 2020</td>
</tr>
</tbody>
</table>
Figure SI-3: Distribution of Average Browsing Time

**Average Amount of Time Spent on the News Site**

Note: The figure excludes those participants who never return to the site after the first visit and those inactive participants who spend more than 15 minutes per day on average (ten participants, three of them did not participate in the endline survey). In total, the figure contains 609 participants (439 in the treatment group and 170 in the placebo group). For the treatment group the average time is 187.25 seconds; for the placebo group it is 190.51 seconds. I cannot reject the null hypothesis that the average duration of the two groups is indistinguishable (Coefficient = 3.26 seconds (s.e. = 14.08); p-value = .817, two-tailed).

Figure SI-4: Panel View of Browsing Behavior across Individual and Time

Note: The figure is a panel view of website browsing activities across individual and time. A red rectangle means that a participant was “treated” by the news articles from a given publication date. The figure excludes participants who never visit the website throughout the study period.
Figure SI-5: Baseline Mean Scores of Beliefs on China by Political Priors

Note: The bar represents 95% confidence interval of the mean. I record the survey responses, if necessary, to make higher value represent more positive, favorable to China.
### Online Appendix A. Headlines of News Articles

<table>
<thead>
<tr>
<th>Date</th>
<th>Headline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 11</td>
<td>最後一夜韓蔡北高對峙！韓強調最重視南部英老調再賣芒果干&lt;br&gt;中選會掟今晚10點完成開票！投下神聖一票記得帶三寶&lt;br&gt;在地產業投資力加大人才需求高上海大學畢業生起薪3.1萬元逼近台&lt;br&gt;示威不停１／５港人患潛在憂鬱症&lt;br&gt;台商返鄉投票加班機創10年新低&lt;br&gt;兩岸和平或衝突就看今朝！民進黨喊保台或賣台都是假議題</td>
</tr>
<tr>
<td>Jan 10</td>
<td>決戰24小時秃鳥燕合體藍大團結百萬庶民挺韓&lt;br&gt;送韓國瑜進總統府全民公懇凝聚韓風吶喊打下架民進黨&lt;br&gt;籲知識藍、經濟藍歸隊趙少康喊話投宋就是投票&lt;br&gt;起風了有規定一定要支持到死嗎臉書粉專蔡英文後援會倒戈挺韓&lt;br&gt;美年報批無視人權陸斥粗暴干預內政&lt;br&gt;新官上任頻拜會鰲惠寧見林鄭重提止暴制亂&lt;br&gt;聚焦採購智財權金融自由化外匯陸證實劉鶴1月13日赴美簽貿易協定</td>
</tr>
<tr>
<td>Jan 9</td>
<td>秃子燕子漢子合體送國政配進總統府庶民站出來今凱道見&lt;br&gt;選前之夜加碼台中場掃全台蔡稱為台挺腰樑&lt;br&gt;如果當選還是會吃路邊攤平民風韓喊當庶民總統&lt;br&gt;只要扯上對岸就可能成滲透來源反滲透法逼退陸資斷台青創業路&lt;br&gt;百萬在陸台人論台版羅興亞人&lt;br&gt;反滲透法將台灣人才推往大陸&lt;br&gt;預言選後藍綠黨內都會大洗牌傅最後挺韓柯指不表態就是表態&lt;br&gt;網友惡意抹紅民衆黨告違選罷法</td>
</tr>
<tr>
<td>Jan 8</td>
<td>首投族118萬挺韓vs.挺蔡站出來！藍綠強對青年票&lt;br&gt;選前恐再出大招沒有他們做不到的！防奧步韓籲別觶競選舉&lt;br&gt;新聞透視》強力「防奧步」！以昔鑑今藍非無的放矢&lt;br&gt;農會憂陸盤商都是政協怎迴避&lt;br&gt;政院對面掛抹紅布條韓辦提告&lt;br&gt;長期批判能源政策部落客陳立誠收警告通知！Google證實政府網軍竊取密碼&lt;br&gt;挺一國兩制吉國元首開先例&lt;br&gt;台不能再給蔡4年美媒刊文藍瘋傳&lt;br&gt;外交圈堵一中論述頻加碼</td>
</tr>
<tr>
<td>Jan 7</td>
<td>藍控拿公帑吸收學生當打手！點名謝長廷培訓假韓粉&lt;br&gt;批故宮政策屬言論自由範疇！法官打臉查水表裁定蘇宏達不罰&lt;br&gt;劉鶴1月13日赴美簽首階段貿易協定&lt;br&gt;中聯辦新主任駱惠寧提三個確保&lt;br&gt;陸外貿利多RCEP將擴大投資&lt;br&gt;轉貼被查辯婦泣訴天天失眠</td>
</tr>
<tr>
<td>Jan 6</td>
<td>黃金周回防新北韓痛批綠食腐蔡嗆藍阻改革&lt;br&gt;蔡籲再4年綠委紅不讓&lt;br&gt;韓嗆下架民進黨藍委全壘打&lt;br&gt;選前陸對台更多陽光不吹北風&lt;br&gt;假民調假消息毀了台灣的誠樸</td>
</tr>
</tbody>
</table>
Jan 5 黑鷹墜毀人為因素待分析黑盒子初判動力正常沒亂流
韓聯警政府視軍公教如米蟲
呂秀蓮批民進黨驚動政權已復辟
美中東增兵警告伊朗勿開戰
美伊若開戰殃及大陸一帶一路
新年不快樂天災人禍危害全球

Jan 4 林靜儀失言連鎖都看不下去批太超過扯爆！蔡辦發言人主張統一是叛國
川普發動無人機攻擊伊朗精神領袖誓言復仇革命衛隊指揮官遭斬首波斯灣戰雲密布
陸反對動武以色列挺美
台商痛批因不支持武統才盼和統
消聲統派等同斬首兩岸和平

Jan 3 黑鷹直升機失事8死5傷慘！參謀總長殉職
去年1萬5000多人丢了飯碗勞工苦悶解僱及無薪假雙創新高
港破獲非法無線電台逮捕15嫌
中大重整校園耗費2.6億台幣
記住67人讓合商台生回不了家
陸配委屈愛台卻被當待宰羔羊

Jan 2 韓競辦公布影片台版史諾登現形國安監控輿論入侵LINE私群
看不下去吹哨者揭國家機器
香港元旦大遊行與警爆衝突
港府發聲明反擊捍衛法治
包道格稱無需過度放大北京因素
新年搶招財錢母9萬人擠爆紫南宮

Jan 1 反滲透法民進黨鴨霸三讀！綠色恐怖人人自危
101大樓幻彩30秒2020繽紛開場
習近平細數中國夢未提台灣
背景書架上父子合照受矚目
對港動之以情對台不再提親情

Dec 31 實質與對岸脫鉤關上往來互動大門反滲透法兩岸禁止交流法
誰下令保密30年中選會教育業說清楚國家機器遮掩論文門閥間蔡怕什麼
香港商家自救黃藍經濟戰開打
民陣元旦遊行已獲不反對通知
敵視仇中陸無人敢聲台發聲

Dec 30 選前強行闖關線對選情沒信心！韓轟反滲透法人民脖子嚇炸彈
等一個人風雨澆不熄鋼鐵粉熱情！30萬韓粉喊凍蒜韓願為人民做牛做馬
假特工王立強詐騙前老闆920萬
美應恪守一中解決貿易分歧

Dec 29 反滲透法對撞民意！反對聲浪從藍桶白蔓延到深綠獨派
贊助2020台北晚會全球獨家轉播！愛奇藝直播跨年柯憂被法辦
陸修改通過台商保護法鬆綁興利
台商籲台政策入法更有效保障
港再爆遊行衝突示威者嗆陸客回去

Dec 28 英諷韓總機宋批反滲透法韓政見會嚇蔡被新系架空
「敵對勢力」、「滲透來源」定義朝野爭議大反滲透法協商無共識下周再戰
40年首次陸俄伊聯合軍演秀肌肉
以訟止戰美商界擬告華府
反滲透法若過關將割兩岸條例
Dec 27 負債比977%前高銀授信放水爆新事證慶富案劍指4大寇
反滲透法今協商藍促下會期新民意決定
反滲透法返威權百萬台人陷恐懼
台商憂見陸官員可能被誣入罪
Dec 26 反滲透立法小英稱可討論綠黨團打臉31日要通過！韓辦怒轟蔡睜眼說瞎話
中市府重懲中火廢2許可證開罰900萬
陸辦奧亞選台選手享主場待遇！教育部提醒須遵守兩岸條例規範
波特王事件國台辦稱企業商業行為
Dec 25 民進黨與南風合約曝光！藍爆暗黑網軍上線劍指民進黨中央
約詢審理馬英九案法官引發強烈反彈！監委當東廠藍發動下架陳師孟
陸日韓攜手共築新三國時代
陸穩住日韓台處境孤立
Dec 24 三立及網軍黑韓無極限韓營今提告蔡吻童親民韓被黑嘸衛生
蔡賴謝菊等大咖都曾登陸競批藍賣台小英曾說一中是唯一選擇
朝港放兩邊陸日韓經濟最優先
尊重內政文在寅對港表態
Online Appendix B. Text Analysis

I conduct a sentiment analysis of the news articles presented on the treatment website. Among all the 106 political news articles that study participants could read on the website, 62 of them attached more positive sentiment in coverage, and 44 of them attached more negative sentiment. We also find that positive articles are shorter in length than negative articles. More importantly, after a careful reading of each news article, I find that the majority of the positive articles deal with China-related issues (e.g., Belt-and-Road, One-Country-Two-Systems/cross-strait relations, Xi Jinping’s 2020 New Year speech, China-Japan-South Korea free trade agreement, and restoration of Hong Kong’s stability) and Han’s political campaign. By contrast *The China Times* attached more negative sentiment in news coverage on issues of the incumbent Tsai and her political party, the Anti-Infiltration Act (a law regulating the influence of entities deemed foreign hostile forces on Taiwan’s political processes such as elections), Hong Kong protesters, and conflicts between Iran and the United States.

Figure SI-6: Sentiment Analysis
Online Appendix C: Descriptive Statistics, Baseline Outcome Scores by Experimental Conditions, and Sample Selection Bias

Table SI-2: Summary Statistics

<table>
<thead>
<tr>
<th>Panel A: All Participants</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote for Han</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>2,077</td>
<td>0.18</td>
<td>0.39</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Endline</td>
<td>815</td>
<td>0.34</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Change Score</td>
<td>815</td>
<td>0.12</td>
<td>0.43</td>
<td>-1</td>
<td>1</td>
</tr>
<tr>
<td>Candidate Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>2,077</td>
<td>-1.32</td>
<td>4.42</td>
<td>-9</td>
<td>9</td>
</tr>
<tr>
<td>Endline</td>
<td>949</td>
<td>-1.19</td>
<td>5.06</td>
<td>-9</td>
<td>9</td>
</tr>
<tr>
<td>Change Score</td>
<td>949</td>
<td>0.04</td>
<td>3.39</td>
<td>-18</td>
<td>18</td>
</tr>
<tr>
<td>Pro-China Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>2,077</td>
<td>2.85</td>
<td>0.9</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Endline</td>
<td>949</td>
<td>2.97</td>
<td>1.03</td>
<td>1</td>
<td>5.6</td>
</tr>
<tr>
<td>Change Score</td>
<td>949</td>
<td>0.11</td>
<td>0.84</td>
<td>-3.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Political Predisposition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pan-Blue</td>
<td>2,077</td>
<td>0.31</td>
<td>0.46</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Independent</td>
<td>2,077</td>
<td>0.31</td>
<td>0.46</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pan-Green</td>
<td>2,077</td>
<td>0.31</td>
<td>0.46</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: Experimental Participant</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote for Han</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>1882</td>
<td>0.17</td>
<td>0.37</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Endline</td>
<td>738</td>
<td>0.33</td>
<td>0.47</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Change Score</td>
<td>738</td>
<td>0.14</td>
<td>0.43</td>
<td>-1</td>
<td>1</td>
</tr>
<tr>
<td>Candidate Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>1882</td>
<td>-1.51</td>
<td>4.32</td>
<td>-9</td>
<td>9</td>
</tr>
<tr>
<td>Endline</td>
<td>861</td>
<td>-1.35</td>
<td>5.07</td>
<td>-9</td>
<td>9</td>
</tr>
<tr>
<td>Change Score</td>
<td>861</td>
<td>0.06</td>
<td>3.35</td>
<td>-12</td>
<td>18</td>
</tr>
<tr>
<td>Pro-China Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>1882</td>
<td>2.8</td>
<td>0.88</td>
<td>1</td>
<td>5.6</td>
</tr>
<tr>
<td>Endline</td>
<td>861</td>
<td>2.95</td>
<td>1.04</td>
<td>1</td>
<td>5.6</td>
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<td>0.85</td>
<td>-3.4</td>
<td>4.2</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pan-Blue</td>
<td>1882</td>
<td>0.28</td>
<td>0.45</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Independent</td>
<td>1882</td>
<td>0.42</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pan-Green</td>
<td>1882</td>
<td>0.3</td>
<td>0.46</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel C: Nonexperimental Participants</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote for Han</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>195</td>
<td>0.34</td>
<td>0.47</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Endline</td>
<td>77</td>
<td>0.45</td>
<td>0.5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Change Score</td>
<td>77</td>
<td>0.08</td>
<td>0.53</td>
<td>-1</td>
<td>1</td>
</tr>
<tr>
<td>Candidate Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>195</td>
<td>0.57</td>
<td>4.9</td>
<td>-9</td>
<td>9</td>
</tr>
<tr>
<td>Endline</td>
<td>88</td>
<td>0.44</td>
<td>4.66</td>
<td>-9</td>
<td>9</td>
</tr>
<tr>
<td>Change Score</td>
<td>88</td>
<td>-0.1</td>
<td>3.76</td>
<td>-18</td>
<td>11</td>
</tr>
<tr>
<td>Pro-China Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>195</td>
<td>3.25</td>
<td>0.99</td>
<td>1</td>
<td>5.6</td>
</tr>
<tr>
<td>Endline</td>
<td>88</td>
<td>3.16</td>
<td>0.92</td>
<td>1</td>
<td>5.4</td>
</tr>
<tr>
<td>Change Score</td>
<td>88</td>
<td>0.05</td>
<td>0.73</td>
<td>-1.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Political Predisposition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pan-Blue</td>
<td>195</td>
<td>0.52</td>
<td>0.5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Independent</td>
<td>195</td>
<td>0.23</td>
<td>0.42</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pan-Green</td>
<td>195</td>
<td>0.25</td>
<td>0.43</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: This table reports descriptive statistics of outcome variables and political priors among all study participants (Panel A), experimental participants (Panel B), and nonexperimental participants (Panel C).
Figure SI-7: Baseline Outcome Scores by Experimental Conditions

Note: The figure reports the mean outcome scores measured in the baseline survey (i.e., before the experiment) by experimental conditions. Estimates are drawn from the experimental sample ($N=1,882$). The bars indicate 95% CI. Results show that the scores are balanced across conditions, suggesting randomization was conducted properly.
Figure SI-8: Analysis of Participation in the Endline Survey, Probit

Note: The figure reports the probit estimates of participation in the endline survey ($N=1,882$). All background variables (except assignment to treatment) are from the baseline survey. The bars indicate 95% CI.
Online Appendix D. Comparison of Control Group and Placebo Group

Table SI-3: Comparison of Placebo Group and Control Group (Baseline Group)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote for Vote for Favor. Favor. China Index Anti-Infi.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Han</td>
<td>0.0238</td>
<td>0.149</td>
<td>-0.0244</td>
<td>0.00875</td>
<td>0.0318</td>
<td>0.102</td>
</tr>
<tr>
<td></td>
<td>(0.250)</td>
<td>(1.330)</td>
<td>(-0.27)</td>
<td>(0.090)</td>
<td>(0.390)</td>
<td>(1.090)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.139*</td>
<td>0.0655</td>
<td>-0.0803</td>
<td>0.0703</td>
<td>-0.146*</td>
<td>-0.176*</td>
</tr>
<tr>
<td></td>
<td>(-2.15)</td>
<td>(0.910)</td>
<td>(-1.45)</td>
<td>(1.230)</td>
<td>(-3.20)</td>
<td>(-3.03)</td>
</tr>
<tr>
<td>N</td>
<td>355</td>
<td>355</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
</tr>
</tbody>
</table>

Note: Comparison of standardized means in outcome scores, among participants in the control group, who were in the status quo between survey waves, and those in the placebo group, who received daily invitations to visit a news website containing real entertainment news from *The China Times*. The baseline group is the control group; the coefficients refer to (standardized) mean differences between the two groups.

Table SI-4: Comparison of Placebo Group and Control Group on Pro-China Index Variables

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favor. Favor. China Trade w/ China Threat China Protest Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placebo</td>
<td>-0.028</td>
<td>0.049</td>
<td>0.101</td>
<td>0.001</td>
<td>0.038</td>
</tr>
<tr>
<td></td>
<td>(-0.34)</td>
<td>(0.520)</td>
<td>(1.020)</td>
<td>(0.010)</td>
<td>(0.390)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.081</td>
<td>-0.107+</td>
<td>-0.155*</td>
<td>-0.083</td>
<td>-0.084</td>
</tr>
<tr>
<td></td>
<td>(-1.53)</td>
<td>(-1.77)</td>
<td>(-2.79)</td>
<td>(-1.65)</td>
<td>(-1.41)</td>
</tr>
<tr>
<td>N</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
<td>424</td>
</tr>
</tbody>
</table>

Note: Comparison of standardized means in five survey questions used to generate China Index between the control group and placebo group. The baseline group is the control group.
Online Appendix E. Pro-China Index Breakdown

Figure SI-9: Regression Coefficients on China-Related Variables

![Graph showing regression coefficients](image)

Table SI-5: Treatment Effects on Pro-China Index, Breakdown

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favor. China</td>
<td>0.167*</td>
<td>0.189**</td>
<td>0.224**</td>
<td>0.188**</td>
<td>0.188**</td>
</tr>
<tr>
<td>Trade w/ China</td>
<td>0.187</td>
<td>0.278</td>
<td>0.390</td>
<td>0.281</td>
<td>0.276</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.0918*</td>
<td>-0.0879+</td>
<td>-0.116*</td>
<td>-0.0829+</td>
<td>(0.070)</td>
</tr>
<tr>
<td></td>
<td>(-2.27)</td>
<td>(-1.90)</td>
<td>(-2.48)</td>
<td>(-1.90)</td>
<td>(-1.49)</td>
</tr>
</tbody>
</table>

Panel B: Two-stage Estimates

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complier</td>
<td>0.671*</td>
<td>0.761**</td>
<td>0.901**</td>
<td>0.758**</td>
<td>0.757**</td>
</tr>
<tr>
<td></td>
<td>(2.440)</td>
<td>(2.730)</td>
<td>(3.100)</td>
<td>(2.730)</td>
<td>(2.680)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.212**</td>
<td>-0.224*</td>
<td>-0.277**</td>
<td>-0.219*</td>
<td>-0.206*</td>
</tr>
<tr>
<td></td>
<td>(-2.58)</td>
<td>(-2.49)</td>
<td>(-2.97)</td>
<td>(-2.51)</td>
<td>(-2.22)</td>
</tr>
<tr>
<td>N</td>
<td>861</td>
<td>861</td>
<td>861</td>
<td>861</td>
<td>861</td>
</tr>
</tbody>
</table>

$t$ statistics in parentheses

$+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001$

Note: This table reports standardized coefficients of ITT (panel A) and TOT (panel B) effects on questions about attitudes toward China-related issues. We use these variables to generate the China Index.
# Online Appendix F. Vote Intent of Experimental Participants

## Table SI-6: Baseline vote intent among experimental participants

<table>
<thead>
<tr>
<th></th>
<th>Han</th>
<th>Tsai</th>
<th>Song</th>
<th>Undecided</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan-Blue</td>
<td>N=264</td>
<td>N=48</td>
<td>N=60</td>
<td>N=162</td>
<td>534</td>
</tr>
<tr>
<td></td>
<td>(49.40%)</td>
<td>(8.90%)</td>
<td>(11.24%)</td>
<td>(30.30%)</td>
<td></td>
</tr>
<tr>
<td>Pan-Green</td>
<td>N=5</td>
<td>N=442</td>
<td>N=21</td>
<td>N=95</td>
<td>563</td>
</tr>
<tr>
<td></td>
<td>(0.89%)</td>
<td>(78.50%)</td>
<td>(3.73%)</td>
<td>(16.90%)</td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>N=42</td>
<td>N=178</td>
<td>N=77</td>
<td>N=488</td>
<td>785</td>
</tr>
<tr>
<td></td>
<td>(5.35%)</td>
<td>(22.68%)</td>
<td>(9.80%)</td>
<td>(62.10%)</td>
<td></td>
</tr>
</tbody>
</table>

*Note: I asked all study participants in the baseline survey which candidate they would vote for if the 2020 Presidential Election were held today. The table is survey responses from those participants who are not existing consumers of *The China Times* and thus are in the experimental sample (N=1882).*

## Table SI-7: Baseline vote intent among experimental participants completing the endline

<table>
<thead>
<tr>
<th></th>
<th>Han</th>
<th>Tsai</th>
<th>Song</th>
<th>Undecided</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan-Blue</td>
<td>N=133</td>
<td>N=21</td>
<td>N=28</td>
<td>N=69</td>
<td>251</td>
</tr>
<tr>
<td></td>
<td>(52.99%)</td>
<td>(8.37%)</td>
<td>(11.16%)</td>
<td>(27.49%)</td>
<td></td>
</tr>
<tr>
<td>Pan-Green</td>
<td>N=1</td>
<td>N=208</td>
<td>N=9</td>
<td>N=40</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>(0.39%)</td>
<td>(80.62%)</td>
<td>(3.49%)</td>
<td>(15.50%)</td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>N=22</td>
<td>N=84</td>
<td>N=38</td>
<td>N=208</td>
<td>352</td>
</tr>
<tr>
<td></td>
<td>(6.25%)</td>
<td>(23.86%)</td>
<td>(10.80%)</td>
<td>(59.09%)</td>
<td></td>
</tr>
</tbody>
</table>

*Note: I asked all study participants in the baseline survey which candidate they would vote for if the 2020 Presidential Election were held today. The table shows survey responses from those participants who are in the experimental sample and have completed both baseline and endline surveys (N=861).*
Table SI-8: How those who selected Han in the election changed from vote intent to realized choice (descriptive statistics by conditions)

<table>
<thead>
<tr>
<th></th>
<th>From Tsai</th>
<th>From Soong</th>
<th>From Undecided</th>
<th>No Change</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>5 (0.096%)</td>
<td>4 (0.076%)</td>
<td>17 (0.325%)</td>
<td>26 (0.50%)</td>
<td>52</td>
</tr>
<tr>
<td>Placebo</td>
<td>1 (0.023%)</td>
<td>2 (0.047%)</td>
<td>15 (0.357%)</td>
<td>24 (0.571%)</td>
<td>42</td>
</tr>
<tr>
<td>Treatment</td>
<td>11 (0.072%)</td>
<td>12 (0.078%)</td>
<td>63 (0.414%)</td>
<td>66 (0.434%)</td>
<td>152</td>
</tr>
</tbody>
</table>

Note: The column indicates how participants who voted for Han in election moved from their vote intent measured in the baseline survey. Four possible scenarios are: (1) Tsai to Han: participants initially intended to vote for Tsai Ing-wen before the experiment and selected Han Kuo-yu in the election. (2) Soong to Han: participants initially intended to vote for James Soong and selected Han Kuo-yu in the election. I view this change as partial conversion. (3) Undecided to Han: participants were initially undecided in the baseline and selected Han Kuo-yu in the election. (4) No change: participants intended to vote Han Kuo-yu in the baseline and selected him in the election. This table provides information about how the treatment moved the vote. It shows that the effects occur mainly by persuading undecided voters rather than converting voters away from their initial vote intention.

Table SI-9: Conversion, Activation, and Reinforcement among Partisan Participants (N=169)

<table>
<thead>
<tr>
<th></th>
<th>Conversion Away</th>
<th>Partial Conversion</th>
<th>Conversion Home (Tsai/Soong)</th>
<th>Activation</th>
<th>No Change</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>1 (0.023%)</td>
<td>0 (0%)</td>
<td>3/3 (0.142%)</td>
<td>11 (0.261%)</td>
<td>24 (0.571%)</td>
<td>42</td>
</tr>
<tr>
<td>Placebo</td>
<td>1 (0.035%)</td>
<td>0 (0%)</td>
<td>0/1 (0.035%)</td>
<td>6 (0.214%)</td>
<td>20 (0.714%)</td>
<td>28</td>
</tr>
<tr>
<td>Treatment</td>
<td>0 (0%)</td>
<td>2 (0.02%)</td>
<td>6/10 (0.161%)</td>
<td>21 (0.212%)</td>
<td>60 (0.606%)</td>
<td>99</td>
</tr>
</tbody>
</table>

Note: Among pan-Blue and pan-Green participants who choose Han in the election. Conversion Away refers to pan-Green participants who initially intend to choose Tsai ultimately vote for Han. Partial Conversion refers to undecided pan-Green participants vote for Han in the election. Conversion Home refers to pan-Blue participants who initially intend to choose (Tsai/Soong) ultimately vote for Han. Activation refers to undecided pan-Blue participants vote for Han in the election. No Change (or reinforcement) refers to pan-Blue (pan-Green) participants who intend to choose Han vote for Han.

Table SI-10: How Independent Participants who selected Han in the election changed from vote intent to realized choice (descriptive statistics by conditions)

<table>
<thead>
<tr>
<th></th>
<th>From Tsai</th>
<th>From Soong</th>
<th>From Undecided</th>
<th>No Change</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>1 (0.10%)</td>
<td>1 (0.10%)</td>
<td>6 (0.60%)</td>
<td>2 (0.20%)</td>
<td>10</td>
</tr>
<tr>
<td>Placebo</td>
<td>0 (0%)</td>
<td>1 (0.07%)</td>
<td>9 (0.64%)</td>
<td>4 (0.28%)</td>
<td>14</td>
</tr>
<tr>
<td>Treatment</td>
<td>5 (0.09%)</td>
<td>2 (0.04%)</td>
<td>40 (0.75%)</td>
<td>6 (0.11%)</td>
<td>53</td>
</tr>
</tbody>
</table>