Who Believes Fake News?

Why partisans are more likely to believe false political information read on social media

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Abstract

As people increasingly receive their news via social media in the Internet age, some political scientists have begun to examine which factors cause seemingly intelligent individuals to believe false political information. Because Facebook and other social media sites have been hesitant to dedicate enough resources to have effective filtering, fact-checking, or editorial judgment, they allow fake news to spread unrestrainedly. In my project, I discuss the cognitive and situational factors that lead people to believe fake news. By administering a survey analyzing people's ability to assess the veracity of political advertisements, I find that strong political partisans are far less likely to critically consume political information on social media than weak partisans or independents.

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The November 2016 election between candidates Donald Trump and Hillary Clinton saw an unprecedented level of foreign meddling in attempts to influence the election of the most powerful democracy in the world. In October of 2016, the Department of Homeland Security and the Office of the Director of National Intelligence assessed Russia's interference in the election after concerns were raised over the influence this had on President Trump's appointment. According to the assessment, the attack was ordered by Russia's president, Vladimir Putin, and partly carried out in the form of so-called "fake news" circulating social media. The committee estimated that nearly 11.4 million Americans were exposed to these deceptive advertisements during and after the election cycle (Select Committee on Intelligence 2019).

While it is unknown whether Russia's meddling changed the outcome of the election, the results showed Hillary Clinton defeated Donald Trump in the popular vote by almost 3 million, and with election margins as narrow as this, citizens should be concerned with the spread of false political information and what they can do to be more critical consumers. News has been an instrument of democracy since the invention of the printing press, and as our technology has evolved, the media's traditional "watchdog role" has become even more instrumental in shaping public opinion and ensuring that citizens have the information they need to make informed decisions regarding their governance. In recent years, we have seen a growing trend where social media is slowly replacing traditional forms of news. In 2017, 62 percent of Americans reported receiving all or some of their news on social media platforms (Alcott 2017).

Returning to the role of social media in light of the controversial 2016 election, one national survey found that more than half of American citizens reported an increased attention to politics as a result of the 2016 election (Pew Research 2017a). Given this convergence of factors – the public is increasingly turning to social media for their political news *and* international and/or domestic actors are increasingly spreading false information to manipulate political outcomes – then the first step to countering a cyberattack would be to evaluate who is the most at risk to seeing and believing fake news. This is especially important given that many Americans may overestimate their ability to identify false news sources; as one study from Pew Research (2016) found that most Americans reported they were at least somewhat or mostly confident that they can identify when a news story is fabricated. I therefore dedicate my research to answering this question: what are the cognitive and situational factors that make people more likely to believe blatantly false or deceptive political news?

Understanding How People Process Information: Biased Information Processing

People are exposed to new information every day, and for decades scientists have studied how people update preexisting beliefs in an ever-changing world. Natural cognitive processes play a significant role in explaining why fake news is so easily believed. One classic study about perceptual bias contends that people filter out information that contradicts or does not conform to their preexisting political views (Gerber 1999). One study shows that there are cognitive costs from holding views that are inconsistent; humans are motivated to maintain harmony among their existing beliefs (Lodge 2013). Additionally, people are more likely to process information and re-

organize it to arrive at the conclusions they want to arrive at instead of ones that challenge their preexisting views (Kunda 1990).

Another study looked at the affect disconfirmation biases has on people's ability to evaluate policy issues. It found that not only do people counter-argue information they disagree with, but also that these views are further polarized as a result of the biased processing (Taber 2009).

The Role of Partisanship: Worsening Information Processing

Not only do different people look at the exact same piece of evidence and interpret that evidence entirely differently, partisans – specifically, Republicans and Democrats – might be more susceptible to this type of biased information processing than the average user. Jerit (2012) contends that once a person forms a belief about a candidate or political issue, they do not evaluate new information regarding these factors without biases. In fact, they are likely to negate views that do not confirm their pre-existing opinions. In sum, there are very specific cognitive processes that make it harder to learn some information than others, thus making biased information processing unavoidable. Another study by Kahan (2012) evaluated the various sources of ideological polarization over a variety of social issues generally separating Republicans and Democrats. It showed that Republicans and Democrats were equally as bad at objectively evaluating information, and that members from both parties had a tendency to manipulate empirical evidence to support their ideological predispositions.

Understanding the Nature of Social Media

Psychologists have attempted to explain how the nature of social media increases the problems with cognitive information processing. The structure of social media –

specifically the unlimited flow of communication, rapidity of information disclosure, echo chambers, and the different purposes for using social media- decrease our already flawed cognitive processes and make us less critical information consumers.

Exposure

Social media has an information priming advantage; the free flow of information on social media increases the ability of news stories to essentially "prime" the viewer towards a particular viewpoint. Even a single exposure to a fabricated piece of political information would greatly increase a person's likelihood of perceived accuracy (Pennycook 2018). Alternatively, while prior exposure may increases the likelihood a person will believe information, one study found that receiving information contrary to your own opinion actually encourages people to seek out like-minded content; even if false (Weeks 2017). Given that social media allows users to engage with and share political information with few restrictions, social media may play in to both of these information biases by not only priming a story but also allowing people to find false sources to contradict any "good" information they receive. It is no wonder, then that during the 2016 election, fake news stories outperform factual news stories in the amount of shares, likes, and comments they received (Pennycook 2018). This means that people are being exposed to false information at higher rates than ever before, and that this increased exposure through social media may be contaminating voter information. Rapid Information Disclosure

Sensationalized false information aimed at retaining reader's attention has been a mechanism for selling information throughout history, but social media greatly amplifies the pace of information dissemination (Figueira 2017). The format in which news is

presented on social media is vastly different than in more traditional sources like newspapers or television coverage. Posts are shorter and circulate at much faster rates, and the average viewer only views an article for 15 seconds or less (Martin 2018). The "shelf life" for news stories is relatively brief, and by the time fact-checking organizations can dismantle fake news, the story could have reached millions of users (Kim 2018). Furthermore, "traditional" journalists may perpetuate the false news cycle by relying on social media as sources without checking the accuracy of this reporting. This is because journalists are struggling to keep up with the 24 hour news cycle, thus giving greater attention to the headline or gist of the news story than the truth in order to receive the news quicker and more efficiently (Kim 2018).

Stopping the spread of distorted information before it reaches millions of users in minutes is simply impossible without significant changes to current communicative structures. Even if fact-checking sources are able to present counter information, this may not be enough to undo the damage caused by the spread of a false news story. One study found that even when presented with fact-checking materials, people developed more accurate factual beliefs about information, but this counter information had no effect on the overall attitudes and opinion about issues or candidates (Nyhan 2019).

Echo Chambers

In addition to the complete lack of institutional regulations surrounding social media, sites are becoming increasingly polarized and present users with information that confirms their preexisting beliefs in algorithmic "echo chambers." Echo chambers allow users to essentially select the news sources they wish to engage in and increase confirmation bias and motivated reasoning, making the truth even harder to recognize

(Shao 2017). This tendency of users to self-select into certain social media groups may be even further exacerbated by the algorithms social media platforms use to determine the sharing of information. For instance, Facebook attempts to increase user satisfaction by presenting information that a person is likely to engage with or that fits their prior beliefs (Kim and Dennis 2018). As a result, people are significantly less likely to find news stories that challenge their opinions on their social media news feed (Garret 2009). This politically motivated selective exposure is polarizing internet users and causing them to be more biased information processors overall.

Hedonistic Framing

Finally, the mindset people have while using social media might undermine their ability to approach the information they receive from a more critical mindset. People generally use social media for hedonistic purposes, such as entertainment or connecting with friends and family, instead of utilitarian ones, such as completing work tasks (Kim 2018). This hedonistic mindset hinders users ability to asses information because they are evaluating it based on what they hope is reality instead of actual reality, meaning that they have a much weaker incentive to question their social media information sources. This mental disengagement becomes more dangerous when, as mentioned previously, sites like Facebook attempt to maximize user satisfaction by presenting articles and stories that the user prefers, causing them to be exposed to a much smaller range of viewpoints than what is actually shared on social media collectively.

Theory: Social Media through a Partisanship Bias

A combination of our natural cognitive processes and the nature of social media explain why people are so susceptible to fake news. But one type of person is potentially

more susceptible to the deception of fake news than others – political partisans. People already have a natural inclination to believe information that confirms their biases, but partisans would be more likely to seek out echo chambers than people who fall in the middle of a social issue or do not have an opinion. And, because the people who seek out echo chambers are less engaged in quality control (because they are seeking out information that confirms their beliefs), partisans will be more likely to view fake news headlines that confirm their biases. They are also more likely to share blatantly false news stories in their networks, leading these stories to circulate quickly in the echo chambers environment.

Arguably, the most dangerous characteristic of social media in terms of truthfulness is the quick information dissemination. Politically informed institutions and individuals have no chance to combat the fake news because the story would have reached a significant portion of the population before they could post a rebuttal. The way news circulates social media only worsens people's already flawed cognitive functions, and that is why there are strong implications of uncontrolled fake news. This leads me to the hypothesis:

Hypothesis: Strong partisans will be less successful at identifying false information on social media than weak partisans or independents.

Methodology: The Experimental Protocol

To test this hypothesis, I created a survey that tests people's ability to critically assess political information in relation to their political participation and social media habits. The survey asked participants to identify the trustworthiness of 10 political advertisements, and it took participants on average 7 to 10 minutes to complete. I administered the survey on October 28, 2019, to 497 respondents from a freshman American Government course at OSU, and they gave informed consent before participating (See Appendix 1). I chose to administer the survey in this course because it a general education requirement and includes students from a wide range of majors. However, my sample tested only college-educated citizens and does not address how education could affect people's discernment of news.

The survey consisted of 10 images of political advertisements that were posted on Facebook, Instagram, or Twitter during the 2016 election (The full survey can be found in Appendix 2). All 10 advertisements were created by Russian bots and were posted on the House Intelligence Committee's website as a part of the committee's assessment. Social media users actual saw these ads during the 2016 election, thus increasing my study's external validity. Underneath each advertisement it asked "Is this ad trustworthy?" and participants answered, "Yes, it is trustworthy" or "No, it is not trustworthy." The question was framed this way because not all "fake news" boils down to facts. Many of the influential political information Russia created was opinion, so wording the question in this way forced participants to view the advertisement as a whole instead of merely the information it was presenting.

Dependent Variable

My dependent variable is the participant's ability to assess whether a news story was trustworthy. The dependent variable was the participants "critical reader" score, and it was given to them based off of how many advertisements they correctly answered as untrustworthy. I coded this variable with a scale from 1 to 10; if they answered that all 10 ads were untrustworthy, they received a perfect critical reader score of 0. Given the

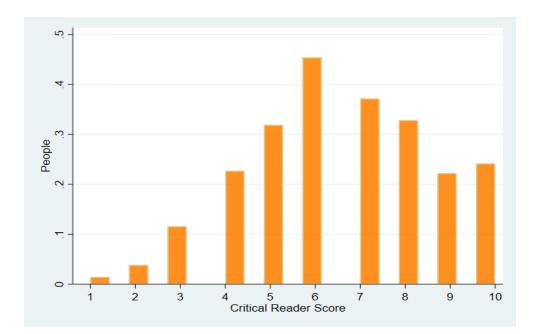
potential variation of this variable, I evaluated my results using a linear regression modeling in STATA.

Independent Variable

The key independent variable was the strength and direction of partisan selfidentification, as my focus was evaluating whether participants' level of partisanship affected their ability to critically evaluate the advertisement. Using a question from a Gallup survey, I asked participants which political party they identified as, and a second question asked how strongly they identified with their respective party labels on a scale from 0 to 5. In this scale, 0 meant they do not identify with the respective party and 5 being they identify very strongly.

Figure 1 shows the distribution of critical reader scores with 0 being a perfect score. Each time a participant answered that an advertisement was trustworthy they received a point. Participants with a critical reader score of 10 were the least accurate, answering that all 10 of the advertisements were trustworthy. The most frequent score among participants was a 6, representing 19.4 percent of the tested population.

Figure 1: The Variation in Critical Reading



Control Variables

The survey concluded with questions about the participant's political participation and social media engagement. Participants were asked about their voting history, how often they engage in political conversations, how often they watch the news, what types of social media they use, and how often they use social media.

Five of the advertisements were supporting Republican beliefs or Donald Trump while the other 5 were supporting Democratic beliefs or either Hillary Clinton or Bernie Sanders. Presenting fake news ads that were equally biased towards both political parties allowed me to test social media users' ability to analyze false information as a whole instead of solely information that confirms their biases. However, one limitation of presenting all fake advertisements is that participants may have felt inclined to mark some of the ads as trustworthy because they assumed not all 10 ads could be false.

Because of experimental limitations, specifically my sampling decision, I was unable to control for age or variations in education level. Ninety percent of my population fell within the age range of 18 to 25 years old. One classic psychological study revealed that age plays a significant role in a person's ability to update their beliefs (Hess 2000). When a person ages, they are more likely to engage in more biased information processing and have less specific and less accurate views on the world.

However, this does mean that this young student body potentially serves as a hard test of the relationship between partisanship and information processes, as college age students may actually be more critical of social media information than are older generations. As a result, college age students should be *more*, not less critical than the average population, and less likely to be tricked by my experimental design.

Results

To examine the connection between political partisanship and successful information processing, I present my linear regression in Table 1. My results show that there is a negative correlation between the two, and a strong and significant negative coefficient of -.234 confirms my hypothesis. The linear regression shows a statistically significant relationship between partisanship and successful information processing (p<0.01). In essence, what this result suggests is that for every one increase in a subject's partisanship (on the 0-5 scale), their tendency to view a Russian bot ad as a "trustworthy source" declined by .234 points.

Table 1: Linear Regression

Variables	Model
Stronger Partisans (Ind. Variable)	234*** (0.082)
Political Affiliation	0.086 (0.102)
Voting History	-0.009 (0.385)
Participation in Political Conversations	0.061 (0.109)
Watches the News	0.147* (0.084)
Uses Social Media	235 (0.429)
Constant	7.124 (0.517)
Observation (N) R-Squared Adjusted R-Squared	474 0.024 0.012
*p<10, **p<.05, ***p<.01	

Beyond my main independent variable, the only other variable that *might* have an impact on critical reading is news watching. Participants who watch the news were slightly more critical readers, and although the correlation results were outside the standard level of significance for political science, this is a relationship worth studying in the future. Other forms of political engagement seem to have no effect on improving critical reading.

However, it is important to note the flaws within my experiment. Because the population of participants is not representative of the country, I was unable to test how demographics such as age, race, or gender affect my dependent variable. These characteristics are proven to dramatically affect our views on the world and would likely have a strong impact on our ability to discern information. It is also notable that I was

unable to test whether the participants were trusting advertisements that fit their preexisting political beliefs due to time constraints and personal limitations accompanying my data analysis. The data simply shows that stronger partisans on both sides of the political spectrum are less critical readers of news.

Conclusions and Directions for Future Research

These findings have serious implications for the political environment and functioning of our democracy. A healthy democracy is reliant on citizens' ability to be critical consumers of information and their ability to make informed decisions about their government and political leaders. Research shows that strong partisans are the most likely demographic to vote, so it is imperative they have the tools to be critical news consumers (Pew Research Center 2017b). Because my results found that strong partisans are the most likely to believe false political information, the two political parties can be influential in preventing this phenomenon by informing their respective bases and training its members to be more critical consumers of the news.

But their efforts alone may not be enough. Without systems in place that can fact check or control for quality, social media will continue to be a breeding ground for fake news. My suggestions for policy implications include institutionalized changes to the flow of information on social media. I support psychologist Dan Kahan's suggestion to develop scientific communication strategies that keep facts relating to policy issues protected from influences that generally make them symbols of polarized identity (Kahan 2012).

In the future I would like to further explore my data to show and examine how specific partisanship to a party or political figure affects this phenomena. I would

evaluate which political party a participant was biased toward and break my dependent

variable into which party or value the specific advertisement favors. This would allow us

to analyze if there is a difference regarding the two parties' ability to identify fake news.

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Appendix 1: How I Obtained Consent

Online Consent Form

You are invited to take part in a research survey about the factors on how people identify false information on social media.

This survey should take approximately 5 minutes. There are no known risks or discomforts associated with this survey.

Taking part in this study is completely voluntary. Your identity will be kept anonymous, and your responses are strictly confidential. You can withdraw at any time without adversely affecting your relationship with anyone at Oklahoma State University. Any report of this research made available to the public will not include your name or any other individual information by which you could be identified.

If you have questions or want a copy or summary of this study's results, you can contact the researcher at Mallory.brookover@okstate.edu. Please feel free to print a copy of this consent page to keep for your records.

Clicking the "Next" button below indicates that you are 18 years of age or older, and indicates your consent to participate in this survey.

Appendix 2: Survey to Measure Critical Reading Ability

- 1. Is this ad trustworthy?
 - a. Yes, it is trustworthy
 - b. No, it is not trustworthy



2. Is this ad trustworthy?a. Yes, it is trustworthyb. No, it is not trustworthy



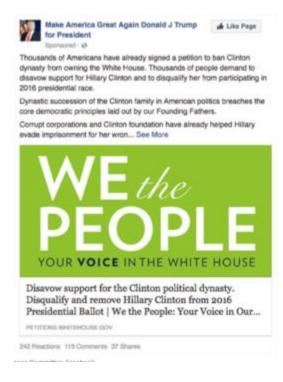
sé Like Page

Hillary Clinton has a 69 percent disapproval rate among all veterans. Indeed, there are many reasons for it. First of all, Benghazi: four people died on her watch and she did not send help. Secondly, Hillary refused to apologize to all veterans, when she has made several remarks about veterans "embellishing" the situation at the VA. Finally, Hillary is the only one politician (except Barack Obama) who is despised by the overwhelming majority of American veterans. If Hillary becomes the President of the US, the American army should be withdrawn from Hillary's control according to the amendments to the Constitution.



3. Is this ad trustworthy? a. Yes, it is trustworthy

b. No, it is not trustworthy



- 4. Is this ad trustworthy?
 - a. Yes, it is trustworthyb. No, it is not trustworthy

Home / Donald Trump / Pennsylvania Federal Court Grants Legal Authority To REMOVE TRUMP After Russian Medding



PENNSYLVANIA FEDERAL COURT GRANTS LEGAL AUTHORITY TO REMOVE TRUMP AFTER RUSSIAN MEDDLING A darks O 3 weeks ago to Consult Trump, Pallon, US Policies A darks O 3 weeks ago to Consult Trump, Pallon, US Policies

- 5. Is this ad trustworthy?
 - a. Yes, it is trustworthy
 - b. No, it is not trustworthy



- 6. Is this ad trustworthy?
 - a. Yes, it is trustworthy
 - b. No, it is not trustworthy



- 7. Is this ad trustworthy?
 - a. Yes, it is trustworthy
 - b. No, it is not trustworthy



BM shared their event. Sponsored · Ø

People are genuinely scared for their futures! Racism won, Ignorance won, Sexual assault won STOP TRUMPI STOP RACISM! JOIN THE PROTEST at Union Sq. Saturday 12 PM Bring signs, snacks, water!



- 9. Is this ad trustworthy?
 - a. Yes, it is trustworthy
 - b. No, it is not trustworthy



Like Page

It's not about the reason, it's all about the time!

Texas holds a strong state identity and more conservative ideology than much of the rest of the country.

It'll be enough for Texas to woke up and say "We're done with Washington!". Texas has the power to become independent.

Hillary's presidency will only become a stronger push for us to secede, but she also can do anything to prevent us from it! ... See More



🖆 Like 🗰 Comment 🦽 Share

10. Is this ad trustworthy?

a. Yes, it is trustworthy

b. No, it is not trustworthy



The time has come to understand one simple thing: we the American muslims are as American



Social Media Use

1. Please indicate if you use any of the following social media sites:

- a. Twitter
- b. Instagram

- c. Facebook
- d. Snapchat
- e. Youtube
- f. Whatsapp
- g. Pinterest
- h. Prefer not to answer

2. Thinking about the social media sites you use... How often do you visit these sites?

- a. Several times a day
- b. About once a day
- c. A few times a week
- d. Every few weeks
- e. Less often
- f. Don't know/Prefer not to answer

Ideology/Political Particiaption

- 1. Which political party do you most closely identify with?
 - a. Republican
 - b. Democrat
 - c. Independent
 - d. Other/Prefer not to answer
- 2. Did you vote in the 2016 election?
 - a. Yes
 - b. No
 - c. Prefer not to answer

3. How strongly do you identify with this political ideology?

- a. 0
- b. 1
- c. 2
- d. 3
- e. 4 f. 5
- 4. How often do you participate in political conversations?
 - a. Every day
 - b. Several times a week
 - c. A couple of times a month
 - d. A couple of times a year
 - e. Never
 - 5. How often do you read, watch, or listen to the news?
 - a. Several times a day
 - b. Once a day
 - c. Several times a week

- d. Once a week/Couple of times a month
- e. Rarely Ever
- f. Never

Demographics

1. What year are you in college?

- a. Freshman
- b. Sophomore
- c. Junior
- d. Senior
- e. Other

2. What is your major?

a._____

- 3. How old are you?
 - a. Younger than 18
 - b. 18-25
 - c. Older than 25