RELIANCE ON EMOTION PROMOTES BELIEF IN FAKE NEWS

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IN THIS BRIEF

The role of emotion in susceptibility to believing fake news is of ongoing concern. We explore the relationship between experiencing specific emotions and believing fake news.

We also measure and manipulate reliance on emotion versus reason across four experiments. Results show evidence that reliance on emotion increases a belief in fake news and decreases the ability to discern fake news from real.

The findings are significant in light of widespread concerns about misinformation's role in international events including recent U.S. presidential elections, and because of social media's rising influence on politics and policy. The results suggest that "going with your gut" can lead you astray, and that stopping to think more reflectively is more prudent.

Because emotional, non-deliberative thinking results in a heightened belief in fake news, the tendency of social-media platforms to bias people toward emotional engagement may contribute to the rise of fake news.

We study the role of emotion in susceptibility to believing fake news to understand why it is so prevalent and to suggest countermeasures that promote better news consumption behaviors. While prior work on the psychology of misinformation has focused primarily on reason and deliberation, the role of emotion remains unclear. To shed light on this issue and to frame the problem in today's context, we explore the relationship between emotions and believing fake news.

In a first study, we find that across a wide range of specific emotions, heightened emotionality at the outset of the study is predictive of greater belief in fake news posts, but not in real news. In a second study, we measured and manipulated reliance on emotion versus reason across four experiments. We find both correlational and causal evidence that reliance on emotion increases belief in fake news. Self-reported use of emotion is positively associated with belief in fake news. In addition, inducing a reliance on emotion results in a 10% increase in belief of fake news stories compared with either a control or inducing reliance on reason.

REAL BELIEFS, FAKE NEWS

International events including the recent U.S. presidential elections and the U.K. Brexit vote have focused attention on the spread of fake news—fabricated information that mimics news-media content in form, but not in organizational process or intent (Lazer et al., 2018). With new technological advances and the rise of social media, nearly anyone can

create a website, publish fake news, and promote that fake news among many thousands, even millions, of people worldwide.

What accounts for the widespread belief in fake news? One popular theory, which we call the motivated cognition account, argues that analytic thinking is primarily to blame (Kahan, 2017). By this account, people use their reasoning abilities to protect their identities and ideological commitments rather than to uncover the truth (Kahan, 2013). This theory proposes that those who rely more on reasoning are better able to convince themselves of the truth of false stories that align with their personal ideologies.

An alternative and opposing perspective, which we call the classical reasoning account, argues that reasoning and analytic thinking typically do uncover the truth of news content (Pennycook and Rand, 2019). By this account, misinformation often succeeds when individuals fail to think carefully and analytically. Conversely, individuals who engage in reasoning and reflection are less likely to mistake fake news as accurate. In prior research that also focused on the role of emotions, different emotions have been suggested to impact both judgment in general and perceptions of political fake news in particular. For example, anger might promote a politically aligned and motivated belief in fake news due to increased general feelings of doubt (Weeks, 2015).

Emotional "gut feelings" have also been considered. These are posited to contribute to less accurate judgments and a heightened belief in falsehoods. For example, faith in intuition and one's general feelings (e.g., "I trust my initial feelings about the facts,") has been associated with a belief in conspiracy theories and falsehoods in science and politics (Garrett and Weeks, 2017).

RESEARCH METHODOLOGY

In our first, exploratory study in 2018, we recruited 409 participants. Participants first completed the Positive and Negative Affect Schedule (PANAS), a 20-item scale that measures how a person is feeling at the moment (Watson et al., 1988). For each item, participants were asked, "To what extend do you feel [a specific emotion] at this moment?" Participants answered on a scale of 1 to 5, with 1 indicating "very slightly or not at all," and 5 indicating "extremely."

Next, participants were shown 20 actual headlines that had appeared on social media. Half the headlines were factually accurate ("real news"), while the other half were entirely untrue ("fake news"). In addition, half the headlines were favorable to the U.S. Democratic Party, while the other half were favorable to the U.S. Republican Party. The headlines were all presented in the format of a Facebook post: A picture accompanied by a headline, byline, and source. For each headline, participants were asked, "To the best of your knowledge, how accurate is the claim in the above headline." Participants answered on a scale of 1 to 4, with 1 indicating "not at all accurate" and 4 indicating "very accurate."

> ***"For nearly every emotion evaluated by the PANAS scale, increased emotionality was associated with an increased belief in fake news."***

The overall results indicate that for nearly every emotion evaluated by the PANAS scale, increased emotionality was associated with an increased belief in fake news. That includes both positive states such as enthusiastic, strong, excited, inspired, and active; and negative states such as scared, upset, distressed, nervous, and ashamed.

The results also suggest that the relationship between emotion and accurate news judgments is specific to fake news. That is, for every emotion except "attentive" and "alert," no significant relationship exists with a belief in real news. As a result, we find that nearly every emotion has a significant interaction with the type of news headlines.

Greater emotionality—both positive and negative—leads to decreased discernment between real and fake news. The only states for which we do not see these effects are "interested," "alert," "determined," and "attentive," all of which are arguably more closely associated with analytic thinking than emotionality per se.

We then conducted a second study that expands on the first in several ways. Primarily, we wanted to explain a key finding in Study 1: that experienced emotion is associated with an increased belief in fake news.

We hypothesized that individuals who experienced greater emotionality also relied on emotion to a greater extent when making accuracy judgments of news headlines. So, in Study 2, we directly manipulated the way individuals engaged in emotional processing while evaluating the veracity of news headlines. We also manipulated the extent to which individuals relied on emotion or reason when judging news headlines. And we investigated whether reliance on emotion versus reason causally affected their judgement of fake news, as well as their ability to discern fake news from real.

Study 2 comprised four experiments involving a total of 3,884 participants. In all four experiments, participants were randomly assigned to one of three conditions: a reason induction ("Please assess the news headlines by relying on reason, rather than emotion"); an emotion induction ("Please assess the news headlines by relying on emotion, rather than reason"); or a control induction. Participants were then presented with a series of news headlines, some real, some fake, some favorable to Republicans, and some favorable to Democrats. For each headline, participants were asked, "How accurate is the claim in the above headline?" They answered on a scale of 1 to 6, with 1 indicating "definitely false" and 6 indicating "definitely true."

Results from Study 2 show that false news headlines were evaluated as more accurate in the emotional condition than in the control and reason conditions. This suggests that causally inducing greater reliance on emotion increases accuracy judgments of fake news headlines. Further, contrary to a motivated reasoning account of believing fake news, we also failed to find evidence that politically concordant fake headlines were believed more in the reason condition than in the emotion condition.

THE ROLE OF EMOTIONS

Our results suggest several conclusions about the roles of emotion and reason in the perception of fake news. First, the findings from Study 1 indicate that momentary emotion, regardless of the specific type or valence of emotion, predicts increased belief in fake news (but not real news), decreasing discernment between real and fake news [Fig. 1].

Second, results from Study 2 clearly suggest that reliance on emotion increases a belief in fake news. The more participants relied on emotion over reason when evaluating news stories, the more they perceived fake news as accurate.

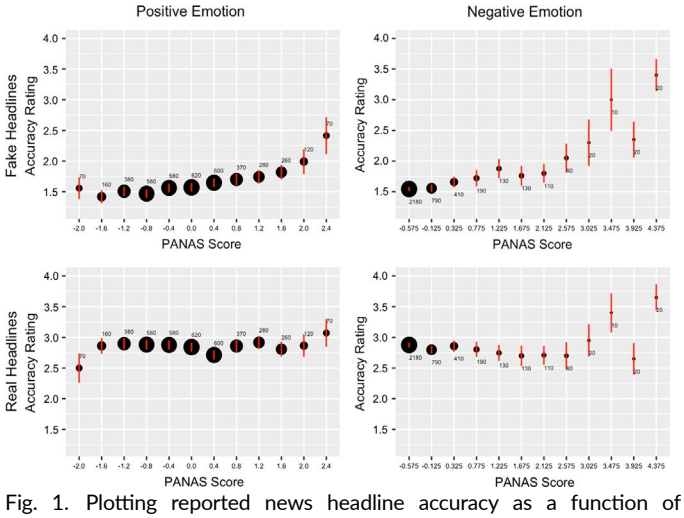

Fig. 1. Plotting reported news headline accuracy as a function of aggregated positive or negative PANAS score shows a positive relationship between both positive and negative emotion and belief in fake news. This relationship is not as evident for belief in real news. Dot size is proportional to the number of observations (i.e., a specific participant viewing a specific headline). Error bars, mean ± 95% confidence intervals.

Our manipulation also revealed that this relationship is more than just correlational; reliance on emotion actually causes greater belief in fake news.

The findings have important practical implications. If emotional, nondeliberative thinking results in a heightened belief in fake news, then the extent to which social-media platforms bias people to think with emotion rather than reason may contribute to the success of fake news.

Indeed, fake news tends to contain increased negative emotional language (Zollo et. al, 2015; Horne and Adali, 2017). Our findings suggest that when people "go with their

gut," they are more vulnerable to believing fake news. In contrast, it would be more prudent to stop and think more reflectively. Future research could examine how online platforms can reduce emotional thinking, thereby potentially decreasing general susceptibility to fake news.

CONCLUSION

The online dissemination of misinformation and fake news is a troubling consequence of our digital age. The need to develop an understanding of the cognitive mechanisms behind fake news is critical.

Our results show that emotion plays a causal role in people's susceptibility to incorrectly perceiving fake news as being accurate. Contrary to the popular motivated cognition account, our findings indicate that people fall for fake news not because they think in a motivated or identity-protective way, but in part because they rely too heavily on emotion. This suggests that interventions directed at making the public less emotional consumers of news media may help to reduce the belief in fake news.

REPORT

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