Reliable Sources?

Correcting Misinformation in Polarized Media Environments

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Abstract

Various pressing issues at the center of today's politics–such as immigration, climate change, or the recent coronavirus pandemic–are imbued with misinformation. A growing body of research therefore explores the effectiveness of providing corrective information as a viable mitigation strategy. While such interventions have been shown to reduce people's factual misperceptions, however, they have little to no effect on underlying attitudes. Our study contributes to this active research by examining how the effectiveness of corrective information is moderated by media choice. In our survey experiment, participants are exposed to a news article published by Fox News or MSNBC, each highlighting the positive economic impact of legal immigration in the United States. While the news content is held constant across sources, our treatment manipulates whether participants are allowed to freely choose a media outlet or are randomly assigned to one of them. We show that the article's effectiveness in correcting factual misperceptions and how it impacts subsequent attitudes towards immigration is conditional on how people gained access to the information. Furthermore, we examine differences in the overall engagement with the news article and intentions to share it (e.g., through social media). Our results illustrate how people's political predispositions and media preferences moderate the effectiveness of corrective information and the likelihood of it being disseminated further. As such, the findings help inform the development of more effective strategies to disseminate corrective information.

1 Introduction

Citizens in western democracies hold wide-ranging and systematic misperceptions about immigrants to their home countries. For example, people usually overestimate the total number of immigrants or the proportion of immigrants that are dependent on social welfare (e.g., Alesina, Miano, and Stantcheva 2019). Given this extensive spread of misinformation, various studies examined how corrective information may affect people's underlying attitudes towards immigration, albeit with limited success. Although corrective information may alleviate factual misperceptions, it rarely affects people's underlying attitudes (see for example Hopkins, Sides, and Citrin 2019).

A possible explanation for this apparent disconnect could be that factual information is simply irrelevant for attitude formation and—if anything—serves as a mere justification for people to rationalize their existing predispositions towards immigrant populations. However, the extent to which people engage such motivated reasoning is not without limits—as people have been shown to update their prior beliefs after reaching a "tipping point" of counter-attitudinal information (Redlawsk, Civettini, and Emmerson 2010). Furthermore, recent research on immigration attitudes demonstrate the persuasiveness of canvassing interventions (Kalla and Broockman 2020).

Why do researchers frequently fail to find evidence of attitude change after providing respondents with corrective information? We argue that most experimental designs in this area fail account for a crucial mechanism, namely people's discretion to engage with a given information source or not. Specifically, studies usually employ simple random assignment of informational treatments without considering people's selective exposure. Unfortunately, such a set-up does not allow us to estimate the quantity of interest that is ultimately of key interest: the effect of misinformation corrections among *people who would have chosen to access the information in the first place* (see also De Benedictis-Kessner et al. 2019; Knox et al. 2019).

We address these shortcomings of previous research by implementing an experimental design that varies both, the source of misinformation corrections as well as its delivery mode (i.e., the process through which people access the information). Specifically, we conduct an online survey experiment on the effectiveness of corrective information on misperceptions about the economic impact of legal immigration. Depending on the experimental condition, participants are either

able to freely choose–or are assigned to–an article published by different news channels (Fox News vs. MSNBC), which discusses the economic impact of legal immigration. After reading the article, participants are asked to evaluate the news story and answer general questions about their attitudes towards immigration.

Taking into account endogenous information search in studies of misinformation corrections is crucial in our rapidly changing media environment where people have unprecedented control over their information diets. While people can access an ever-growing set of news outlets of varying quality, we only have a limited understanding as to how these systemic changes in information channels moderate the effectiveness of corrective information itself. Past research mostly focused on the effect of different *types* of misinformation corrections. This study contributes to the literature by shifting the focus to the question of *how* and *from where* corrective information reaches people. Our results suggest that source credibility is more important than the delivery mode.

2 Why misinformation corrections (often) fail

In principle, providing people with new information should have the potential to change their attitudes related to the underlying issue. Numerous studies, however, have shown that changing people's minds is far from easy, especially when it comes to deeply held beliefs that are connected to people's identity. How individuals respond to a new set of facts and evidence depends on their motivation to arrive at an accurate conclusion as well as people's assessment of the information source as credible and relevant. Absent substantial motivation to accurately process information, individuals interpret new information in light of their extant attitudes. A compelling explanation of this pattern is the tendency to engage in motivated reasoning. In short, humans are biased information seekers (Kunda 1990; Taber and Lodge 2006) and asymmetric updaters (Sunstein et al. 2016). Nevertheless, given the right conditions, people have been shown to update their beliefs in light of new evidence (Redlawsk, Civettini, and Emmerson 2010). In order to understand when misinformation corrections can be effective and why they might fail, it is important to start with a clear conceptualization of the underlying mechanism involving opinion change.

2.1 Differentiating factual beliefs, interpretations, and opinions

People form different interpretations from the same facts. This seems to have increased recently. The facts, or objective information, surrounding climate change, impeachment, and COVID-19 are interpreted differently. As people interpreted these facts opinions were formed that informed attitudes. Attitudes are a set of emotions, beliefs, behaviors towards an object, person or event. How a person interprets the facts of COVID-19 interpreted their behavior as the event unfolded.

Factual beliefs become relevant for political judgments only when people interpret them. Even though people update their factual beliefs as conditions change, individuals can interpret the same factual beliefs differently depending on characteristics such as their partisanship. Many times interpretations, rather than factual beliefs drive opinions (Gaines et al. 2007). Interpretations give opportunity to rationalize existing opinions and attitudes. Rationalizations include evaluations such as the number casualties is modest loss, or number of immigrations is high or low. Another form of rationalizations are explanations. An example of this is the explanation that there were no weapons of mass destruction found in Iraq because they never existed. Lastly, inferences such as spending on war can mean domestic needs are ignored. Another rationalization could lead to questions such as an immigration tradeoff or redistribution. Interpretations afford leeway to align factual beliefs with undeniable reality and continue to justify partisan preferences. As events unfold, onslaught of evidence-ex. Figures recited on daily news-can trump partisan motivation with respect to factual beliefs. Motivation colors judgement, but people are also motivated to be rational (Kunda 1990).

A substantial body of research indicates that factual belief and knowledge is reliably associated with ideologically constrained attitude. The underlying assumption is that individuals will develop ideologically organize their attitudes toward specific political issue if they have acquired enough information for forming the conceptual content of the left-right continuum. Therefore, a person who possesses more well-developed political schemas, or well-organized pieces of political information is more likely has clear issue stances/attitudes (Zaller 1992; Stimson 2015). Evaluative Motivation (Federico 2007) suggests that the critical process relates to the need to use factual beliefs for evaluative purposes. In this vein, the use of ideology actually consists of two different processes:

first, factual belief provides individuals an understanding of the left-right continuum, enabling them to meaningfully identify themselves with an ideological position Secondly, resulting ideological predispositions can then be used for evaluative judgment about a broader set of political issue.

Can correct information change attitudes? Correct information can change factual beliefs or perceptions but not necessarily related attitudes (Hopkins, Sides, and Citrin 2019). Do facts influence attitudes? Jury is out, but probably not (e.g., Hopkins, Sides, and Citrin 2019). Whether people update and what it means to update is up for debate.

Why don't people update their related attitudes? One explanation is that they first have to be interpreted either by individuals themselves or by letting others do it for them (Gaines et al. 2007). "People cannot turn to a manual to determine if an additional 50 troop casual-ties during the past month represents a big, moderate, or small loss."

2.2 The role of media choice, source credibility, and selective exposure

Mass media is by far the most regular used information source. Dalton, Beck, and Huckfeldt (1998) found that perception of news is shaped as much by a person's political views as by objective content. Even if an individual perceives their news source as unbiased, they will perceive their daily news source to report biased information. They found that regardless of the paper's actual stance it was viewed as skewed toward the opposite political beliefs of the reader. Individuals with strong partisan beliefs are more skeptical that "neutral" media reports with accuracy and believe the media as biased against their beliefs (Little 2019).

Sources that are deemed credible are more influential than sources with low credibility. Credibility includes both expertise and trustworthiness and studies have found that source credibility impacts whether individuals will correct misinformation (Guillory and Geraci 2013). One would assume that non-partisan authorities would be a trusted source of information. However, in a time when partisanship colors how people perceive new information, even neutral sources might be less credible than is often presumed (see Berinsky 2018). Neutral sources such as the AMA and the AARP lack authority at time because they are overridden by politicized ones. It is rare for Republicans and Democrats to find a independent source therefore many sources of information

lack credibly. This partisan lens extends to how individuals process fake news. Error correction of fake news is mostly likely to be effective when coming from a co-partisan w/ whom one might expect to agree (Berinsky 2017).

The idea of source credibility extends to the individual political actor. Kuklinski and Hurley (1994) connected the use of ideological heuristics and source cues. They argued that by focusing their attention on the individual political actor, citizens make quick judgments of the information presented to them based largely on the reputation of the speaker. Experimental subjects presented with a message evaluated that message based largely on their opinion of the speaker. In this way the messenger overwhelms the message.

Source credibility profoundly affects social interpretations of information (Lupia and McCubbins 1998).

3 Results

Previous research examining the effectiveness of corrective information showed that it does not always lead to attitude change even if misperceptions are reduced (Hopkins, Sides, and Citrin 2019; Swire-Thompson et al. 2019). However, others find that media exposure can persuade people to change their attitudes under certain conditions (e.g., De Benedictis-Kessner et al. 2019). Our study explores how the way people access corrective information influences the likelihood of its success in reducing misperceptions. In general, we expect that those who were able to choose a news agency are more likely to pick a source similar to their usual media diet. Additionally, we expect those who read a news story from a trusted news source (and who are able to pick the news agency) are more inclined to evaluate the article positively and change their attitudes in the direction of the news article.

3.1 Research design

Our study builds on the Preference-Incorporating Choice and Assignment Design proposed by De Benedictis-Kessner et al. (2019) and Knox et al. (2019). Participants are randomly assigned

to a free choice treatment condition, a forced exposure treatment condition, or a control group. Participants in the free choice condition are asked to choose whether they want to see a recent breaking news tweet from either FoxNews or MSNBC. After viewing the tweet, which links to a news story focusing on immigrant-owned businesses in the US, participants are asked to read the corresponding article. In the forced exposure condition, participants do not have the option to choose a news organization (FoxNews or MSNBC), but are randomly assigned to one or the other. In either condition, the content of the news article is held constant across sources. By holding the content constant, our design has the additional advantage of more clearly differenting the effects of the choice vs assigned group by ensuring that the differences are not a result of the structure, content, or tone of different stories. Finally, participants who are randomly assigned to the control group skip the tweet and article entirely and move directly from the pre-treatment battery (questions on media usage, stereotyping, and political attitudes/behavior) to the post-treatment battery (questions on attitudes toward immigrantion and trust in different media sources). For more details on the design, see Figure 1 below as well as the full questionnaire, including all treatment conditions, in our pre-registered analysis on EGAP.

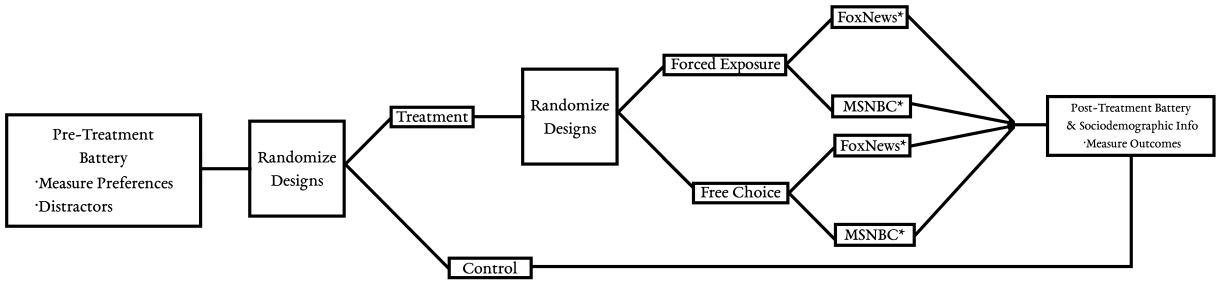

Figure 1: Survey Flow

Prior to the discussion on our specific hypothesis testing below, an overview of the differences across the three groups (control, assigned, and choice) and individual media preferences, is necessary. This general landscape of the sample will provide a solid foundation from which our more distinct tests below arise.

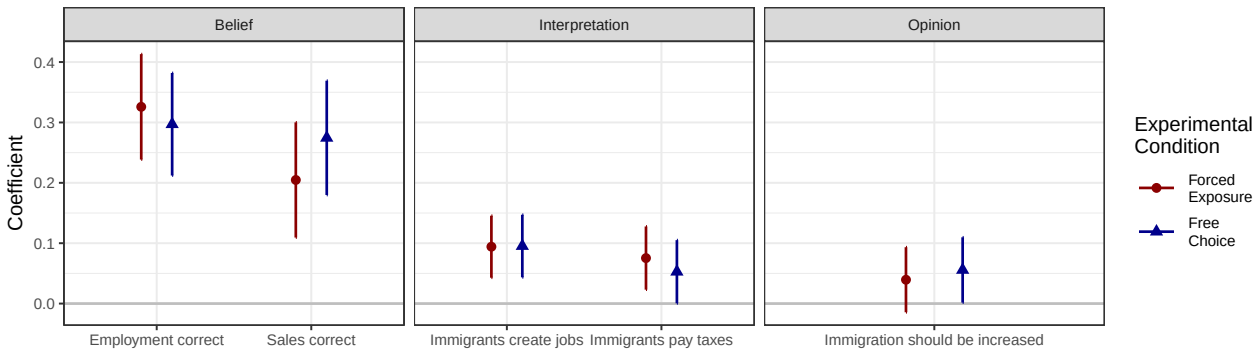

Figure 2: Treatment effects of forced exposure and free choice condition. Coefficients are based on linear regression models controlling for pre-treatment covariates. Full model results included in the appendix.

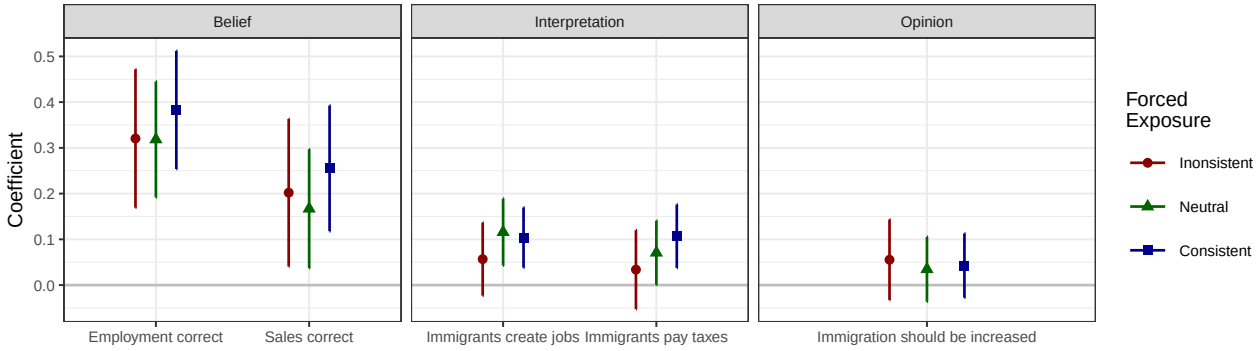

Figure 3: Treatment effects within forced exposure condition, conditional on media preference. Coefficients are based on linear regression models controlling for pre-treatment covariates. Full model results included in the appendix.

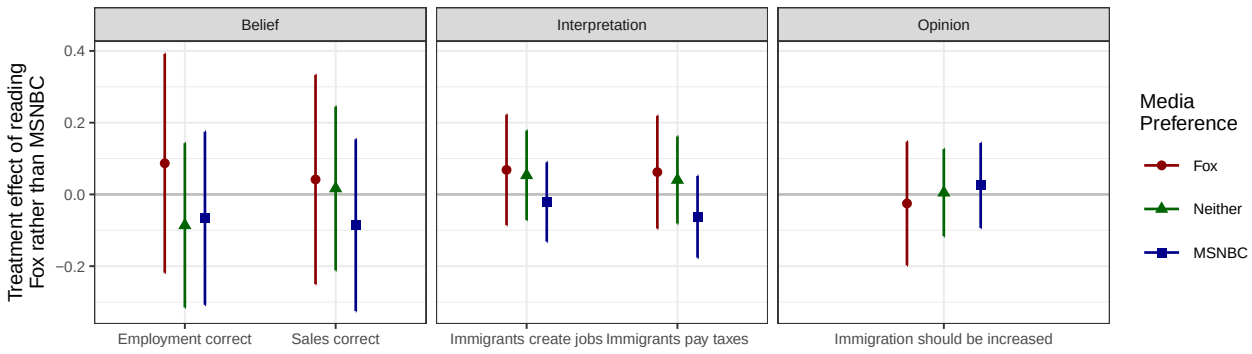

Figure 4: ACTE Estimates comparing exposure to Fox vs. MSNBC

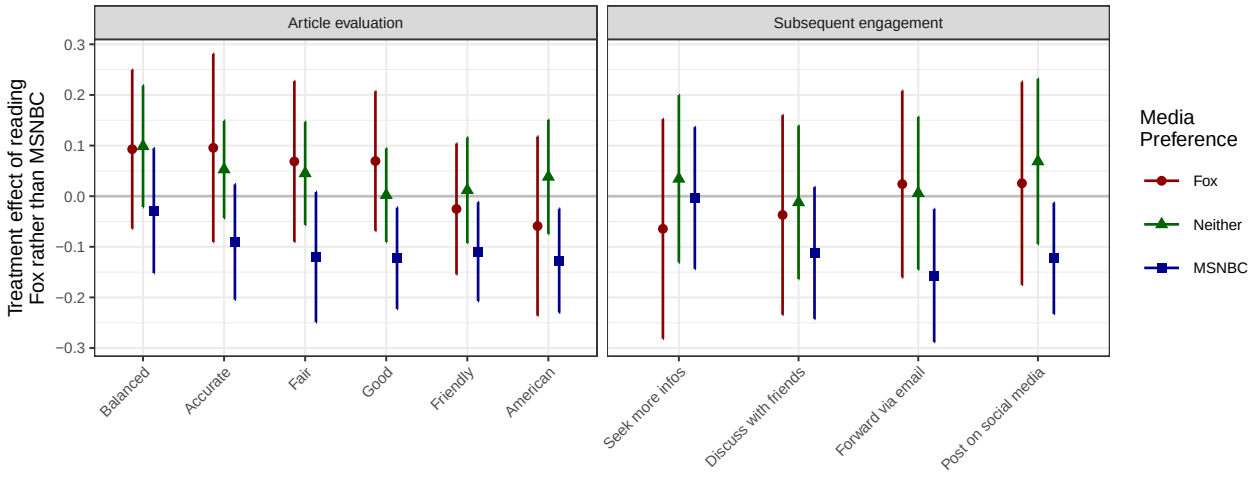

Figure 5: ACTE Estimates comparing exposure to Fox vs. MSNBC

4 Conclusion

5 Appendix: Full Model Results

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Table 1: Main Treatment Effects

	Employment Belief	Sales	Jobs Interpretation	Taxes	Immigration Opinion
	(1)	(2)	(3)	(4)	(5)
Assigned	0.326***	0.205***	0.094***	0.075***	0.039
	(0.046)	(0.049)	(0.026)	(0.026)	(0.027)
Choice	0.297***	0.274***	0.095***	0.053**	0.056**
	(0.046)	(0.049)	(0.026)	(0.026)	(0.026)
Racial Prejudice	−0.087	0.009	−0.159***	−0.166***	−0.154***
	(0.073)	(0.078)	(0.042)	(0.042)	(0.042)
Immigration Problem	0.055	0.051	0.252***	0.243***	0.241***
	(0.059)	(0.063)	(0.034)	(0.034)	(0.034)
Age	0.005***	0.001	−0.0003	−0.002*	−0.003***
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
Male	−0.117***	−0.109***	0.016	0.015	0.019
	(0.038)	(0.040)	(0.021)	(0.021)	(0.022)
Born in US	−0.186*	−0.228**	−0.011	−0.014	−0.027
	(0.102)	(0.109)	(0.058)	(0.058)	(0.059)
White	−0.029	−0.027	−0.046*	−0.067**	−0.005
	(0.048)	(0.051)	(0.027)	(0.027)	(0.027)
College	−0.003	0.045	0.078***	0.046**	0.095***
	(0.038)	(0.040)	(0.021)	(0.021)	(0.022)
Constant	0.185	0.479***	0.415***	0.530***	0.504***
	(0.134)	(0.144)	(0.076)	(0.076)	(0.077)
Observations	587	587	587	587	587
R^2	0.127	0.075	0.176	0.162	0.170

Note: *p<0.1; **p<0.05; ***p<0.01

Table 2: Main Treatment Effects

	Employment Belief	Sales	Jobs Interpretation	Taxes Interpretation	Immigration Opinion
	(1)	(2)	(3)	(4)	(5)
Inconsistent	0.320***	0.202***	0.057	0.034	0.055
	(0.070)	(0.077)	(0.041)	(0.042)	(0.043)
Neutral	0.318***	0.167**	0.116***	0.071**	0.035
	(0.059)	(0.065)	(0.035)	(0.035)	(0.036)
Consistent	0.383***	0.255***	0.104***	0.107***	0.043
	(0.060)	(0.066)	(0.035)	(0.036)	(0.037)
Racial Prejudice	−0.080	0.035	−0.180***	−0.179***	−0.125**
	(0.086)	(0.093)	(0.050)	(0.051)	(0.052)
Immigration Problem	−0.031	0.049	0.245***	0.219***	0.218***
	(0.071)	(0.078)	(0.042)	(0.043)	(0.043)
Age	0.002	−0.002	−0.00003	−0.002	−0.002*
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
Male	−0.109**	−0.100**	−0.038	−0.011	−0.010
	(0.045)	(0.049)	(0.026)	(0.027)	(0.027)
Born in US	−0.083	−0.237*	−0.048	−0.016	−0.073
	(0.120)	(0.131)	(0.070)	(0.072)	(0.073)
White	0.036	−0.049	−0.058*	−0.075**	−0.017
	(0.057)	(0.062)	(0.033)	(0.034)	(0.035)
College	−0.048	0.002	0.064**	0.041	0.077***
	(0.045)	(0.049)	(0.026)	(0.027)	(0.027)
Constant	0.231	0.623***	0.490***	0.567***	0.532***
	(0.156)	(0.170)	(0.091)	(0.093)	(0.095)
Observations	385	385	385	385	385
R^2	0.152	0.074	0.183	0.154	0.127

Note: *p<0.1; **p<0.05; ***p<0.01