

Supplementary Materials for
*Truth-seeking vs. Balance:
The Credibility Dilemma in Correcting Political Misinformation*

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1 Descriptive Results: Fact-checking Coverage

To illustrate reporting practices of professional fact-checking sites, I analyzed coverage datasets of FactCheck.org, PolitiFact, and Washington Post Fact Checker, the three major U.S. fact-checking sites (Graves and Glaisyer 2012). I also present examples of the headlines and coverage produced by professional fact-checking sites, which served as the rationale for the study design of the experiments.

1.1 PolitiFact: Comprehensive Coverage Data (2007-2020)

The comprehensive dataset of PolitiFact’s fact-check coverage includes fact-checks published since PolitiFact was established in 2007 and until 2020. I obtained the dataset from Mohsen Mosleh, who used the dataset in Mosleh and Rand (2022). The dataset was originally collected by Barrett Golding (publicly available data can be found [here](#)), who shared the full datasets with Mohsen Mosleh.

While the original dataset ($n = 4,589$) encompasses a variety of fact-check targets—including politicians, journalists, talk show hosts, business personals, media outlets, etc.—I constrain my analysis to political figures whose political affiliations are identified as either Democrat or Republican (in the original data, `PF-type` = ‘Democrat’ or ‘Republican’). The dataset that I analyzed included a total of 2,435 political figures, with 1,145 Democrats and 1,290 Republicans.

I analyzed PolitiFact’s coverage data differently from Mosleh and Rand (2022) in the following ways. First, Mosleh and Rand (2022) constrained their analysis to the political figures who were fact-checked by PolitiFact at least three times, to calculate the propensity to produce misleading claims. Different from their approach, my analysis included all political figures who were fact-checked at least once by PolitiFact. Second, Mosleh and Rand (2022) assigns an ordered numbering to fact-checks to calculate the falsity score (True: 1, Mostly True: 0.8, Half True: 0.6, Mostly False: 0.4, False: 0.2, Pants on Fire: 0). I adopt a binary approach, defining a fact-checked claim to be “false” if the corresponding fact-check rating is either “Mostly False,” “False,” or “Pants on Fire.” Although “Half True” claims are often misleading and not entirely accurate, I did not count them as false claims based on PolitiFact’s procedure ([link](#)) that defined “Half True” as: “The statement is partially accurate but leaves out important details or takes things out of context.”

Table S1 presents the number of fact-checks for each rating category, number of political figures fact-checked, and the sum of false claims (“Mostly False,” “False,” or “Pants on Fire”) for two different periods (pre- and post-2016).

Table S1: Count of Fact-checks by Rating Category, Number of False Ratings and Fact-checked Political Figures: PolitiFact

Category	Pre-2016 (Last fact-checked in 2007-2015)		Post-2016 (Last fact-checked in 2016-2020)	
	Democrat	Republican	Democrat	Republican
True	308	312	691	611
Mostly True	359	296	977	849
Half True	332	368	857	1047
Mostly False	222	350	599	1134
False	275	471	489	1270
Pants on Fire	98	183	117	470
Political Figures	637	687	508	603
False Claims	595	1004	1205	2874

Note: *Political Figures* indicate the number of Democratic and Republican figures whose claims were fact-checked by PolitiFact at least once during the given time period. *False Claims* indicate the number of claims that PolitiFact rated as false (the sum of “Mostly False,” “False,” or “Pants on Fire”).

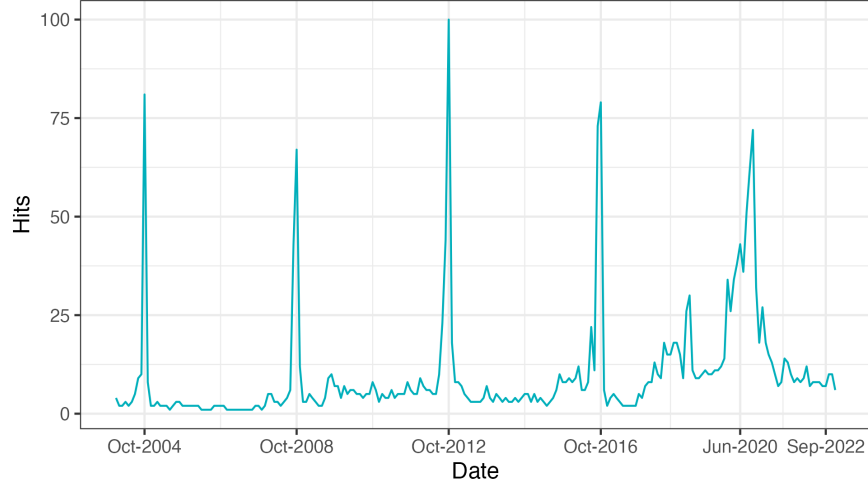
1.2 FactCheck.org, Washington Post: Month-level Coverage Data

To collect fact-check coverage data on FactCheck.org and Washington Post Fact Checker, I leveraged their monthly fact-check archives. I collected the content of fact-checking articles published by FactCheck.org and Washington Post during the months of October 2016, June 2020, and September 2022.¹ As described in the manuscript, the choice of three months was informed by the public interest in fact-checking as reflected in Google Trends data. To examine over-time interest in fact-checking among the U.S. public, I retrieved the Google Trends data using the R package ‘gtrendsR.’ Among the topics specified by Google, Figure S1 is based on the topic “fact-checking,” which includes related search terms such as ‘fact-check,’ ‘fact checking,’ etc.

The data collection focused on fact-checking articles (“fact-checks”) that provide assessments about specific claims made by specific entities (e.g., individual, group). Articles that were not typical fact-checks were excluded from the data collection (e.g., articles that contained explanations of a topic absent target figure/statement, a summary of fact-checks that were previously published, video that summarizes a previously published fact-check, or quizzes about past fact-checks). For each fact-checking article, I collected the following article-level information:

¹The archive links for FactCheck.org: [Oct 2016](#), [Jun 2020](#), [Sep 2020](#); The archive links for WASHINGTON Post Fact Checker: [Oct 2016](#), [Jun 2020](#), [Sep 2022](#).

Figure S1: Public Search Interest in ‘Fact-checking’ (GoogleTrends)



Note: The peak in the year 2020 was October 2020, but June 2020 is indicated on the horizontal axis for being the month of interest for the data collection.

- source: the name of the fact-checking site where the article was published.
- date: a variable that indicates the date of publication in the format of dd/mm/yy.
- headline: the title of the article.
- correct: a variable that indicates which party is corrected as being factually inaccurate in an article. “Democrat” if the Democratic Party is predominantly corrected, “Republican” if the Republican Party is predominantly corrected, and “both” if both parties are similarly corrected, and empty if neither party is corrected.²
- validate: a variable that indicates which party is validated as being factually accurate in an article. “Democrat” if the Democratic Party is predominantly validated, “Republican” if the Republican Party is predominantly validated, and “both” if both parties are similarly validated, and empty if neither party is validated.

As shown in the fact-checking headlines published by FactCheck.org and Washington Post

²In most cases, fact-checking articles focus on a single target statement/figure. If a target statement is made by a group that opposes Party A, then the group is considered to be affiliated with Party B (e.g., Lincoln Project’s statement is considered a Democratic claim; [example](#) from Washington Post Fact Checker). If a target statement opposes Party A, then the statement is considered to be affiliated with Party B ([example](#) from FactCheck.org). Although it is relatively rare, fact-checking articles sometimes target both parties within a single article. When an article covers more than two statements made by either party, the party that gets corrected for a greater number of statements is recorded for the variable “correct.” If an article corrects an equal number of statements, the relative degree of ratings is considered. For instance, if Party A gets ‘mostly true’ (one Pinocchio) and Party B get ‘mostly false’ (two Pinocchios) within a fact-check, this is considered as “correcting Republican” ([example](#) from Washington Post Fact Checker).

Table S2: Count and Proportion of Fact-checks that Target Political Parties: FactCheck.org and Washington Post Fact Checker

Source	Month/Year	Correct Democrats	Correct Republicans	Correct both	Validate Democrats	Validate Republicans	Validate both	Total Partisan	Total All
FactCheck.org	10/2016	7 (27%)	15 (58%)	3 (12%)	1 (4%)	0 (0%)	0 (0%)	26	28
	06/2020	2 (9%)	21 (91%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	23	47
	09/2022	7 (35%)	13 (65%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	20	26
Washington Post Fact Checker	10/2016	5 (19%)	19 (73%)	1 (4%)	1 (4%)	0 (0%)	0 (0%)	26	27
	06/2020	4 (25%)	12 (75%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	16	17
	09/2022	6 (67%)	2 (22%)	0 (0%)	1 (11%)	0 (0%)	0 (0%)	9	9

Note: *Total Partisan* indicates the total number of fact-checks with partisan targets (statements made by partisan figures or groups). *Total All* indicates the total number of fact-checks with and without partisan targets. Percentages are calculated out of *Total Partisan*.

Fact Checker during October 2016, June 2020,³ and September 2022 (Table S3 - Table S5), the headlines and their accompanied decks explicitly indicate which partisan figures or groups are wrong. The headline language tends to explicitly signal the inaccuracy, by characterizing the target claims as “false,” “wrong,” “misleading,” “false,” “unsupported,” “misguided,” “inaccurate,” “ridiculous,” “bogus,” “bizarre” or describing the speaker’s statement using verbs such as “muddy,” “mischaracterize,” “twist,” “spin,” “cherry-pick.” To reflect the typical language used in the actual fact-checking coverage while avoiding overly mocking language, I designed the stimulus headlines to employ expressions such as “have wrong,” “mislead,” “get incorrect,” and “mischaracterize.”

³In June 2020, partly due to the COVID pandemic, FactCheck.org published 25 fact-checks on non-partisan targets (usually social media posts).

Table S3: Fact-checking Coverage by FactCheck.org and Washington Post Fact Checker: October 2016

Source	Date	Headline	Correct	Validate
FactCheck.org	10/03/16	Spinning Trump's Taxes	Republican	
FactCheck.org	10/03/16	Clinton on the Stump	Democrat	
FactCheck.org	10/04/16	To Be or Not to Be a Wolf		
FactCheck.org	10/05/16	FactChecking the VP Debate	both	
FactCheck.org	10/06/16	Fired Over VA Wait Times	Democrat	
FactCheck.org	10/07/16	Trump Muddies Immigrant Voting Issue	Republican	
FactCheck.org	10/10/16	FactChecking the Second Presidential Debate	both	
FactCheck.org	10/12/16	Trump Twists Facts on WikiLeaks	Republican	
FactCheck.org	10/13/16	Trump's Misguided Debate Bias Claim	Republican	
FactCheck.org	10/14/16	Jolly, Trump Photos Are Fake	Democrat	
FactCheck.org	10/14/16	Trump Twists Facts on Murder Case	Republican	
FactCheck.org	10/14/16	Clinton's Auto Bailout Falsehood	Democrat	
FactCheck.org	10/18/16	Pence's Unsupported Haiti Claim	Republican	
FactCheck.org	10/19/16	Trump's Bogus Voter Fraud Claims	Republican	
FactCheck.org	10/19/16	A Deal That Never Happened	Republican	
FactCheck.org	10/20/16	Clinton's Misleading Debt Claims	Democrat	
FactCheck.org	10/20/16	FactChecking the Final Presidential Debate	Republican	
FactCheck.org	10/21/16	More Bogus Trumponomics	Republican	
FactCheck.org	10/24/16	Did the Pope Endorse Trump?		
FactCheck.org	10/24/16	More Bogus Voter Fraud from Trump	Republican	
FactCheck.org	10/25/16	Clinton's Connection to FBI Official	Republican	
FactCheck.org	10/25/16	A False 'Corruption' Claim	Republican	
FactCheck.org	10/26/16	Clinton and Nuclear Launch Times		Democrat
FactCheck.org	10/27/16	A False Attack on Toomey	Democrat	
FactCheck.org	10/28/16	Democratic Deceptions	Democrat	
FactCheck.org	10/28/16	Trump Wrong on Murder Rate	Republican	
FactCheck.org	10/28/16	Still Cherry-Picking Premiums	Republican	
FactCheck.org	10/31/16	Spinning the FBI Letter	both	
WaPo Fact Checker	10/03/16	Trump's claim that his hotel in D.C. is 'under budget, ahead of schedule'	Republican	
WaPo Fact Checker	10/04/16	Clinton, Kaine go too far in touting a nuclear deal with Russia	Democrat	
WaPo Fact Checker	10/05/16	Fact-checking the vice-presidential debate between Kaine and Pence	Republican	
WaPo Fact Checker	10/06/16	Clinton, Kaine airbrush out inconvenient details about U.S. troop departure from Iraq	Democrat	
WaPo Fact Checker	10/07/16	Neither Kaine nor Pence was 'absolutely' correct about Clinton emails and court-martial	both	
WaPo Fact Checker	10/09/16	Fact-checking the second Clinton-Trump presidential debate	Republican	
WaPo Fact Checker	10/11/16	Trump's claim about Canadians traveling to the United States for medical care	Republican	
WaPo Fact Checker	10/11/16	The facts about Hillary Clinton and the Kathy Shelton rape case		Democrat
WaPo Fact Checker	10/12/16	Trump's ridiculous claim that he won 'every poll' on the second presidential debate	Republican	
WaPo Fact Checker	10/12/16	'Whole bunch' of facts don't support Obama's claim that many VA bosses were fired over scandal	Democrat	
WaPo Fact Checker	10/13/16	Trump's false claim that Clinton 'lost' \$6 billion at the State Department	Republican	
WaPo Fact Checker	10/14/16	Trump flip-flops on whether women's sexual allegations should be believed	Republican	
WaPo Fact Checker	10/17/16	Trump's claim that a Clinton-backed Haiti factory 'amounted to a massive sweatshop'	Republican	
WaPo Fact Checker	10/18/16	Clinton's bogus claim that Trump didn't want to save the auto industry	Democrat	
WaPo Fact Checker	10/19/16	Fact-checking two false claims by Trump alleging widespread voter fraud	Republican	
WaPo Fact Checker	10/19/16	Trump's claim of 'collusion' by the FBI and State to make Hillary Clinton 'look less guilty'	Republican	
WaPo Fact Checker	10/20/16	Fact-checking the third Clinton-Trump presidential debate	Republican	
WaPo Fact Checker	10/21/16	Trump's claim that the Islamic State 'is in 32 countries'	Republican	
WaPo Fact Checker	10/21/16	Trump's claim tying violence at his rallies to the Clinton campaign	Republican	
WaPo Fact Checker	10/24/16	No, Eric Trump, 14 percent of noncitizens are not registered to vote	Republican	
WaPo Fact Checker	10/24/16	Trump's claim that Clinton 'allowed thousands of criminal aliens to be released'	Republican	
WaPo Fact Checker	10/25/16	Abortion-rights advocates' claim that 'one in three women has had an abortion'		
WaPo Fact Checker	10/25/16	Trump's mixed-up version of the latest Hillary Clinton email controversy	Republican	
WaPo Fact Checker	10/26/16	The facts behind Trump's repeated claim about Hillary Clinton's role in the Russian uranium deal	Republican	
WaPo Fact Checker	10/27/16	Clinton campaign's claim that Trump 'says he'd deport 16 million people'	Democrat	
WaPo Fact Checker	10/28/16	Trump's claim that he predicted that Obamacare 'can't work'	Republican	
WaPo Fact Checker	10/30/16	Trump's bizarre claim that the Clinton email controversy is 'bigger than Watergate'	Republican	

Table S4: Fact-checking Coverage by FactCheck.org and Washington Post Fact Checker: June 2020

Source	Date	Headline	Correct	Validate
FactCheck.org	06/03/20	Post on Floyd Protests Uses Old Vandalism Photos		
FactCheck.org	06/04/20	The Semantics of ‘Tear Gas’ Versus ‘Pepper Spray’	Republican	
FactCheck.org	06/04/20	Viral Posts Share Old, Edited White House Photo in Dark		
FactCheck.org	06/05/20	Trump Touts Strong Jobs Report, Flubs Some Facts	Republican	
FactCheck.org	06/05/20	Bricks Were Placed for Construction, Not to Incite Protesters		
FactCheck.org	06/05/20	LEGO Temporarily Halts Marketing, Not Sales, of Police Toy Sets		
FactCheck.org	06/05/20	Meme Misrepresents Fauci’s Position on Vaccine Trials		
FactCheck.org	06/08/20	The Continuing ‘Tear Gas’ Debate		
FactCheck.org	06/08/20	Video of Trump’s ‘Choke’ Quote Refers to Political Rivals		
FactCheck.org	06/08/20	Nuremberg Code Addresses Experimentation, Not Vaccines		
FactCheck.org	06/08/20	Does Vitamin D Protect Against COVID-19?		
FactCheck.org	06/09/20	Trump Tweets Baseless Claims About Injured Buffalo Protester	Republican	
FactCheck.org	06/09/20	Statue in Lincoln Memorial Was Not Defaced by Protesters	Republican	
FactCheck.org	06/09/20	China Didn’t Stop Virus ‘Cold’ Outside Wuhan	Republican	
FactCheck.org	06/09/20	Posts Distort Facts on Floyd Pathologist’s Role in Past Cases		
FactCheck.org	06/10/20	Misleading Ad Targets Biden on Fossil Fuels, Fracking	Republican	
FactCheck.org	06/10/20	Trump’s False Claim on Tijuana Coronavirus Cases	Republican	
FactCheck.org	06/11/20	Trump Wrong on Crime Record	Republican	
FactCheck.org	06/12/20	Trump’s Deceptive Ad on Biden and Defunding the Police	Republican	
FactCheck.org	06/12/20	Colorado Vaccine Bill Includes Nonmedical Exemptions for Children	Republican	
FactCheck.org	06/12/20	Donations to Black Lives Matter Group Don’t Go to DNC		
FactCheck.org	06/12/20	Unpacking WHO’s Asymptomatic COVID-19 Transmission Comments		
FactCheck.org	06/12/20	Bogus Claims of ‘Crisis Actors’ in Death of George Floyd		
FactCheck.org	06/16/20	Ahead of Trump Rally, Republicans Spin COVID-19 Metrics	Republican	
FactCheck.org	06/16/20	Sarah Huckabee Sanders Did Not Post Conspiratorial Tweet		
FactCheck.org	06/17/20	Biden on Economic Growth and Trump’s Tax Cuts	Democrat	
FactCheck.org	06/17/20	Trump Wrong on Obama-Biden Actions on Policing	Republican	
FactCheck.org	06/17/20	Pence’s False Claims About Trump’s Handling of Coronavirus	Republican	
FactCheck.org	06/17/20	Facebook Post Repeats Flawed Claim on Wuhan Lab Funding		
FactCheck.org	06/17/20	Meme Spreads Wrong Photo, Details in Floyd Criminal Case		
FactCheck.org	06/17/20	Conspiracy Theory on Floyd’s Death Disproved by Footage		
FactCheck.org	06/18/20	Azar, Trump Mislead on FDA’s Hydroxychloroquine Decision	Republican	
FactCheck.org	06/19/20	Trump’s Absentee vs. Mail-In Ballot Spin	Republican	
FactCheck.org	06/19/20	Trump Campaign Didn’t Advertise for ‘MINORITY Actors’ in Tulsa		
FactCheck.org	06/19/20	Gifting a Folded Flag Isn’t ‘Only For Fallen Veterans’		
FactCheck.org	06/22/20	Trump Inherited More Ventilators Than Have Been Distributed	Republican	
FactCheck.org	06/23/20	Viral Photo Misidentified as Trump Tulsa Crowd	Republican	
FactCheck.org	06/23/20	Posts Falsely Claim Wallace Mistook ‘Automotive Belt for a Noose’		
FactCheck.org	06/24/20	Trump’s Unsupported Claim About Opportunity Zone Investments	Republican	
FactCheck.org	06/24/20	Fake AOC Tweet Politicizes COVID-19 Business Restrictions		
FactCheck.org	06/25/20	Trump Falsely Says COVID-19 Surge ‘Only’ Due to Testing, Misleads on Deaths	Republican	
FactCheck.org	06/25/20	Trump’s Shaky Warning About Counterfeit Mail-In Ballots	Republican	
FactCheck.org	06/26/20	Biden Floats Baseless Election Conspiracy	Democrat	
FactCheck.org	06/26/20	Trump Falsely Claims Obama ‘Destroyed’ Maine Lobster Industry	Republican	
FactCheck.org	06/29/20	Wearing Face Mask During Pandemic Doesn’t Affect Concealed Carry Permit		
FactCheck.org	06/30/20	Painting of Children in Masks Isn’t a 1994 Airport Mural		
FactCheck.org	06/30/20	Meme Misrepresents Florida Surgeon General’s Position on Face Masks		
WaPo Fact Checker	06/02/20	Mitch McConnell got ‘rich’ the old-fashioned way	Democrat	
WaPo Fact Checker	06/03/20	White House targets protesters with misleading video	Republican	
WaPo Fact Checker	06/03/20	Donald Trump, friend of ‘all’ peaceful protesters?	Republican	
WaPo Fact Checker	06/04/20	How specific were Biden’s recommendations on the coronavirus?	Democrat	
WaPo Fact Checker	06/05/20	Trump’s claim that he’s done more for black Americans than any president since Lincoln	Republican	
WaPo Fact Checker	06/08/20	William Barr’s Four-Pinocchio claim that pepper balls are ‘not chemical’	Republican	
WaPo Fact Checker	06/09/20	Trump tweets outrageous conspiracy theory about injured Buffalo man	Republican	
WaPo Fact Checker	06/12/20	Joe Biden’s shifting recollection on his civil rights activities	Democrat	
WaPo Fact Checker	06/15/20	Democratic ad misleadingly attacks Susan Collins on the Paycheck Protection Program	Democrat	
WaPo Fact Checker	06/16/20	Trump’s zombie claim that he has invested \$2 trillion in the military	Republican	
WaPo Fact Checker	06/17/20	Trump’s false claim that Obama ‘never even tried to fix’ police brutality	Republican	
WaPo Fact Checker	06/18/20	Video evidence of anti-black discrimination in China over coronavirus fears		
WaPo Fact Checker	06/22/20	Who caused the violence at protests? It wasn’t antifa.	Republican	
WaPo Fact Checker	06/24/20	Fact-checking the GOP’s ‘satirical’ vote-by-mail video	Republican	
WaPo Fact Checker	06/25/20	Trump keeps saying Obama left him ‘no ventilators.’ The number is 16,660.	Republican	
WaPo Fact Checker	06/26/20	Michael Flynn, Barack Obama and Trump’s claims of ‘treason’	Republican	
WaPo Fact Checker	06/29/20	Bottomless Pinocchio: Trump’s claim that he will ‘always’ protect those with preexisting conditions	Republican	

Table S5: Fact-checking Coverage by FactCheck.org and Washington Post Fact Checker: September 2022

Source	Date	Headline	Correct	Validate
FactCheck.org	09/02/22	Biden's Campaign-Style Distortions	Democrat	
FactCheck.org	09/07/22	Trump Distorts Facts in Pennsylvania Rally	Republican	
FactCheck.org	09/07/22	Biden Hasn't Officially Filed for Reelection, Contrary to Social Media Claims	Republican	
FactCheck.org	09/09/22	Crist Ads Misrepresent DeSantis Statements on Abortion and Background Checks on Guns	Democrat	
FactCheck.org	09/09/22	Florida GOP Attacks Crist with Misleading Claims About the IRS and Police	Republican	
FactCheck.org	09/14/22	Herschel Walker Cites Outdated Crime Figures in False Attack on Raphael Warnock	Republican	
FactCheck.org	09/14/22	Misleading Attack on Murkowski's Gun Vote	Republican	
FactCheck.org	09/15/22	Clinical Trials Show Ivermectin Does Not Benefit COVID-19 Patients, Contrary to Social Media Claims		
FactCheck.org	09/16/22	Viral Posts Spin Falsehood Out of Denmark's COVID-19 Booster Drive		
FactCheck.org	09/19/22	Republican Talking Point Omits Key Details About Stimulus Payments to Inmates	Republican	
FactCheck.org	09/19/22	GOP Ad Mischaracterizes Michigan Candidate's Response to 2020 Protests	Republican	
FactCheck.org	09/20/22	Is the Pandemic 'Over'? Biden Says So, But Scientists Say That's Up for Debate	Democrat	
FactCheck.org	09/22/22	Johnson's False Claim about Barnes' Tax Plan	Republican	
FactCheck.org	09/22/22	NRSC's Misleading Attack on Warnock	Republican	
FactCheck.org	09/23/22	Q&A on Omicron-Updated COVID-19 Boosters		
FactCheck.org	09/23/22	Biden's Misleading Claims About the Economic Recovery and Unemployment	Democrat	
FactCheck.org	09/23/22	GOP Ads Use Outdated Federal Report to Attack Democrats on 'Higher Taxes'	Republican	
FactCheck.org	09/26/22	Illinois Law Doesn't 'Eliminate All Restrictions on Abortions,' Contrary to Ad from Advocacy Group	Republican	
FactCheck.org	09/26/22	GM, Ford Vehicles Were Donated to Ukraine by Carmakers		
FactCheck.org	09/27/22	Video Makes Baseless Claim About Insurance Coverage of Vaccinated Frenchman		
FactCheck.org	09/28/22	Posts Take Biden's Vaccination and Hurricane Prep Comments Out of Context, Again	Republican	
FactCheck.org	09/28/22	Everytown's Misleading Ad on Johnson's Votes 'Against Funding for the Police'	Democrat	
FactCheck.org	09/29/22	COVID-19 Vaccine Opponents Misrepresent CDC Webcast on Causes of Blood Clots		
FactCheck.org	09/29/22	Biden's Misleading Boast on Medicare Premium Drop	Democrat	
FactCheck.org	09/30/22	Fetterman Ad Pushes Back on Crime	Democrat	
FactCheck.org	09/30/22	Pro-Dixon Ad Uses 'Joke' About Drag Queens in a Misleading Attack on Whitmer	Republican	
WaPo Fact Checker	09/02/22	Biden's bungled talking point on the muzzle velocity of AR-15s	Democrat	
WaPo Fact Checker	09/07/22	These Republicans cheered abortion policy going to states. They are also sponsoring a federal ban.	Republican	
WaPo Fact Checker	09/08/22	Hillary Clinton's claim that 'zero emails' were marked classified		Democrat
WaPo Fact Checker	09/10/22	The Lincoln Project falsely claims Trump has pocketed 'every dollar' he raised	Democrat	
WaPo Fact Checker	09/13/22	Biden's flimsy claim he has the 'strongest' manufacturing jobs record	Democrat	
WaPo Fact Checker	09/22/22	The GOP claim that Democrats support abortion 'up to moment of birth'	Republican	
WaPo Fact Checker	09/23/22	Biden's unwarranted bragging about reducing the budget deficit	Democrat	
WaPo Fact Checker	09/27/22	The false claim that Senate Republicans 'plan to end Social Security and Medicare'	Democrat	
WaPo Fact Checker	09/29/22	Stacey Abrams's rhetorical twist on being an election denier	Democrat	

1.3 Examples of Fact-checking Headlines

As shown in the preceding tables, in many of the fact-checking headlines, the targets were individual public figures. To prevent preexisting attitudes toward high-profile politicians from affecting source assessments, the names of specific politicians were masked in the stimulus headlines (e.g., “a Democratic/Republican Senator,” “a Democratic/Republican governor”). The fact-checking headlines also sometimes target each party collectively or as a group, as shown in Table S6. To indicate partisan targets without invoking specific politicians, some of the stimuli headlines referred to partisan groups or entities such as “Democratic/Republican National Committee,”⁴ “Democratic/Republican Party,” or “Democrats/Republicans.”

Table S6: Examples of Fact-checking Headlines that Refer to Partisan Groups

Source	Date	Headline
FactCheck.org	04/26/13	Democrats Distort Vote on Climate Change
FactCheck.org	10/22/13	Democrats Exaggerate Shutdown Costs
FactCheck.org	07/28/16	Day 3 at the Democratic Convention
FactCheck.org	10/28/16	Democratic Deceptions
FactCheck.org	05/08/17	Republican Health Care Spin
FactCheck.org	01/26/18	Democrats’ Misleading Tax Line
FactCheck.org	01/07/19	RNC Misleads on ‘Immoral’ Democratic Bill
FactCheck.org	01/07/19	RNC Misleads on ‘Immoral’ Democratic Bill
FactCheck.org	03/15/19	Democrats Mislead on Military Pay, Pensions
FactCheck.org	08/07/19	What Republicans Did on Mental Health, Guns
FactCheck.org	12/05/19	Republicans Cherry-Pick Facts on Impeachment
FactCheck.org	03/03/20	Democrats’ Misleading Coronavirus Claims
FactCheck.org	01/23/21	Republican Spin on Democrats’ Voting Bill
FactCheck.org	10/08/21	Republicans Mischaracterize Proposed Financial Reporting Requirement
FactCheck.org	05/02/22	Article, RNC Tweet Distort Biden’s Comments on Teachers
WaPo Fact Checker	12/11/15	Democrats’ misleading claims about closing the no-fly list ‘loophole’
WaPo Fact Checker	03/14/16	What GOP candidates got wrong — and right
WaPo Fact Checker	07/19/16	Fact-checking the first day of the 2016 Republican National Convention
WaPo Fact Checker	01/09/17	Republicans once again rely on a misleading Obamacare factoid
WaPo Fact Checker	02/22/17	Democrats persist with the slippery claim of a ‘60-vote standard’ for Supreme Court nominees
WaPo Fact Checker	08/07/18	Democrats seize on cherry-picked claim that ‘Medicare-for-all’ would save \$2 trillion
WaPo Fact Checker	06/24/20	Fact-checking the GOP’s ‘satirical’ vote-by-mail video

As shown in Table S7, professional fact-checking sites sometimes provide subjective assessments about a policy or an issue. For instance, they sometimes explicitly state that a certain politician did “worse” compared to other candidates or provided “bad” advice to people. Other examples include providing assessments on whether a gun law would improve or worsen crime rates, whether an immigration policy would improve or hurt the economy, whether a health care bill would improve or worsen health care options, or whether a tax cut would improve or worsen the lives of affected people.

In Study 1, to succinctly deliver such a subjective tone in stimulus headlines, two of the stimuli headlines adopt language such as “worse” and “wrong path.” It should be noted,

⁴PolitiFact considers DNC and RNC as major targets of their reporting and keeps track of their past ratings on these two organizations (Links to PolitiFact’s fact-checks on each: [RNC](#), [DNC](#))

however, that typical fact-check headlines more often critique factual inaccuracy, rather than offer subjective or normative assessments as shown in preceding tables. To reflect fact-checking coverage that focuses on factual accuracy than subjective assessments, in Study 2, headline language for all headlines was kept strictly factual.

Table S7: Examples of Fact-checking Headlines with Subjective, Judgmental Language

Source	Date	Headline	Summary
WaPo Fact Checker	12/02/14	Has House Republicans' inaction on immigration cost \$37 million a day?	Two Pinocchios
WaPo Fact Checker	12/10/15	Marco Rubio's claim that no recent mass shootings would have been prevented by gun laws	True - Geppetto Checkmark
WaPo Fact Checker	04/02/16	Trump's nonsensical claim he can eliminate \$19 trillion in debt in eight years	Four Pinocchios
WaPo Fact Checker	09/08/16	Actuarial math: Trump has a slightly higher chance of dying in office than Clinton	Life expectancy for Trump 17yr, Clinton 19yr
WaPo Fact Checker	09/13/16	Trump's ridiculous claim that veterans are 'treated worse' than undocumented immigrants	absurd comparison
WaPo Fact Checker	09/21/16	Cruz's claim that ICANN's transition will empower foes to censor the Internet	Three Pinocchios
WaPo Fact Checker	02/01/17	Trump's claim that he did 'substantially' better with blacks than other GOP presidential candidates	Trump did worse
WaPo Fact Checker	06/20/17	Pelosi's claim that an estimated 1.8 million jobs will be lost	Two Pinocchios
WaPo Fact Checker	10/17/17	Does a city with the 'toughest gun laws' end up with 'worst gun violence'?	Chicago is often cited, but facts are wrong
WaPo Fact Checker	10/17/17	Do tougher gun laws lead to 'dramatically lower rates of gun violence'?	Little evidence that gun laws reduce gun violence
WaPo Fact Checker	10/23/17	EPA Administrator Scott Pruitt's claim that the U.S. is 'leading the world' in 'C02 footprint' reductions	Three Pinocchios
WaPo Fact Checker	10/25/17	Trump's claim that he's done more 'by far' than Obama in the fight against ISIS	Two Pinocchios
WaPo Fact Checker	10/27/17	Nancy Pelosi's claims on middle-income taxpayers and state and local tax deductions	Two Pinocchios
WaPo Fact Checker	01/12/18	Is the Trump tax cut good or bad for the middle class?	Two Pinocchios
PolitiFact	03/26/12	Marcy Kaptur stated "The poorest in this country are women."	True
PolitiFact	06/29/12	Becky Moeller stated "the federal health care law upheld by the Supreme Court "has improved or saved the lives of more than 4,000 Texans" otherwise prevented from obtaining health coverage due to pre-existing conditions."	True
PolitiFact	02/01/13	Ted Cruz stated "the jurisdictions with the strictest gun control laws, almost without exception ... have the highest crime rates and the highest murder rates."	False
PolitiFact	04/08/13	Ted Cruz stated "Expanding Medicaid will worsen health care options for the most vulnerable among us in Texas."	False
PolitiFact	09/16/14	Rand Paul stated "Income inequality is worse in towns run by Democrat mayors than in towns run by Republican mayors."	Half True
PolitiFact	03/05/15	Julie Lassa stated "The infant mortality rate is 15 percent higher in states with right-to-work laws."	Half True
PolitiFact	08/25/15	Julius Jones stated "The policy mistakes that ... the Clintons made got us, in large degree, to the situation that we are in today with mass incarceration."	Half True
PolitiFact	03/22/16	Paul Ryan stated "70 percent of Americans believe that we are on the wrong path."	Mostly True
PolitiFact	09/09/16	Donald Trump stated "Our veterans, in many cases, are being treated worse than illegal immigrants."	False
PolitiFact	08/22/17	John Moorlach stated "Crime has been getting worse since Jerry Brown was elected governor."	Mostly False
PolitiFact	10/13/17	Roy Blunt stated "Missouri "is leading the country when it comes to improving services for mental and behavioral health. Innovation is happening right here."	Mostly True
PolitiFact	10/09/20	Greg Abbott stated "Property crime rising in Austin. This is the kind of thing that happens when cities defund and deemphasize police. Residents are left to fend for themselves."	Mostly False
FactCheck.org	07/07/04	Economy Producing Mostly Bad Jobs? Not so fast.	Higher-paying jobs growing faster
FactCheck.org	05/13/10	Does Immigration Cost Jobs?	immigration doesn't hurt American workers
FactCheck.org	06/27/14	Misassigning Blame for Immigration Crisis	Tennessee Sen Alexander is not for a surge of illegal aliens
FactCheck.org	07/10/15	Is Medicaid Bad for Your Health?	Medicaid patients are poorer and sicker, but not because of Medicaid
FactCheck.org	10/11/18	Trump's School Safety Funding Falsehood	new law doesn't fund school safety at historic levels
FactCheck.org	10/26/18	Trump Stump Speeches: Health Care "Under the new "right to try" law, "we've had some incredible results already."	No evidence
FactCheck.org	10/26/18	Trump Stump Speeches: Health Care "Democrats have signed up for a socialist takeover of American health care that would utterly destroy Medicare and rob our seniors of the benefits they paid into their entire lives."	Bill adds more benefits
FactCheck.org	10/26/18	Trump Stump Speeches: Economy "We gave you the biggest tax cut in the history of our country."	False
FactCheck.org	10/26/18	Trump Stump Speeches: Economy "In less than two years, we have created over 4.2 million new jobs and lifted over 4 million Americans off of food stamps."	Exaggerates
FactCheck.org	12/09/19	A Misleading Take on Immigrant, Veterans Health Care	A health records system Democrats voted down did not affect veterans
FactCheck.org	09/04/20	Trump's Bad Advice for Mail-In Voters	Trump gave bad advice to mail-in voters

2 Experimental Design

2.1 Study 1

Subjects were randomly assigned to one of the four experimental conditions:

1. Symmetric corrections (Baseline)
2. Republican-challenging asymmetric corrections (Treatment 1)
3. Democrat-challenging asymmetric corrections (Treatment 2)
4. Symmetric coverage with neutral language (Exploratory condition)⁵

For Treatment Conditions 1 and 2, participants were considered as being assigned to “uncongenial asymmetry” treatment if five headlines corrected in-group (e.g., a Democrat assigned to Democrat-leaning asymmetry), whereas they were considered as assigned to “congenial asymmetry” treatment if five headlines corrected out-group (e.g., a Democrat assigned to Republican-leaning asymmetry).

Table S8: Headline Wordings for Partisan Topics (Sets 1-3) and Neutral Topics (A, B)

Set	Partisan gap	Topic/Headline (a)	Topic/Headline (b)
1	Greater	Black teenager pregnancy: What [Republicans/Democrats] have wrong about the pregnancy rate among black teenagers	Abortion: What [Republicans/Democrats] get incorrect about the number of abortions over time
2	Greater	Immigration: [Republican/Democratic] National Committee pursues a policy for the worse on the deportation of illegal immigrants	Gun homicide: [Republican/Democratic] party takes the wrong path for the policy on gun homicide
3	Smaller	Wall Street Bailout: [Republican/Democratic] Senator misleads on which president signed the Wall Street bailout into law	US foreign debt: [Republican/Democratic] governor mischaracterizes the causes of US debt
A	N/A	Health: Exercise can greatly reduce your risk of cancer and heart disease	
B	N/A	Finance: Google to spend \$10 billion on offices, data centers in US this year	

The content of headlines was designed in the following ways:

- In all conditions, a total of eight headlines were presented, six headlines on the topics that have partisan implications⁶ along with two headlines on the topics neutral to political parties.

⁵The preregistration indicated that this condition was exploratory and would be excluded from main analyses.

⁶Facts with *partisan implications* have positive or negative implications for political parties (Jerit and Barabas 2012).

- The choice of three sets of comparable partisan topics were informed by Wood and Porter (2019), which identified the six topics presented in Table S8 to be bipartisan misstatements (black teenager pregnancy rates, abortion, immigration, gun homicide, Wall Street Bailout (Troubled Asset Relief Program), US foreign debt). Because the politicians of both Republican and Democratic parties have previously made misstatements on these topics, it was plausible to attribute either party as the source of misstatements.
- Three sets of comparable partisan topics and headlines were chosen on the basis of Wood and Porter (2019)’s results (Figure 1, p. 144). On the bipartisan misstatements (Wood and Porter (2019)’s Study 2), the differences in correction effects between liberals and conservatives were relatively greater on topic sets 1 and 2 (black teenager pregnancy rates, abortion, immigration, gun homicide), compared to set 3 (Wall Street bailout, US foreign debt).
- The phrase and tone of the headlines were designed to be similar between the two headlines within each set.
- In the actual stimuli, the headlines were presented as a list, not as a table, using a font (Georgia) distinct from the survey. The words ‘Democratic’ and ‘Republican’ were not colored or bracketed.
- Coverage asymmetry was manipulated by altering party reference in each headline (to vary the number of headlines that refer to each party) across conditions, while keeping the content of headlines constant.
- Within each experimental condition, subjects were randomly assigned to one of the two different topic-party associations. The purpose was to reduce the chance that outcomes were affected by specific topic-party associations.

(1) Symmetric Corrections (Baseline Condition)

The two variations of topic-party associations (Table S9) were generated through the following steps:

1. The headlines were ordered in a way that avoids presenting either six partisan topics in a row or two neutral topics in a row. For Version 1, the headlines were listed in the order of: 1-a, 2-a, A, 3-a, 1-b, 2-b, B, 3-b (headline labels are from Table S8). To create a list that has even number of Democrat-correcting and Republican-correcting headlines, the party references of “R-D-R-R-D-D (R = Republican; D = Democrat)” were assigned to partisan headlines. To make the list more realistic, there were variations in the number of consequent headlines with the same party reference, instead of alternating the two

Table S9: Symmetric Corrections (Baseline Condition)

Version 1		Version 2	
1-a	What [Republicans] have wrong about the pregnancy rate among black teenagers	1-b	What [Democrats] get incorrect about the number of abortions over time
2-a	[Democratic] National Committee pursues a policy for the worse on the deportation of illegal immigrants	2-b	[Republican] Party takes the wrong path for the policy on gun homicide
A	Exercise can greatly reduce your risk of cancer and heart disease	A	Exercise can greatly reduce your risk of cancer and heart disease
3-a	[Republican] Senator misleads on which president signed the Wall Street bailout into law	3-b	[Republicans] governor mischaracterizes the causes of US debt
1-b	What [Republicans] get incorrect about the number of abortions over time	1-a	What [Democrats] have wrong about the pregnancy rate among black teenagers
2-b	[Democratic] Party takes the wrong path for the policy on gun homicide	2-b	[Republican] National Committee pursues a policy for the worse on the deportation of illegal immigrants
B	Google to spend \$10 billion on offices, data centers in US this year	B	Google to spend \$10 billion on offices, data centers in US this year
3-b	[Democratic] governor mischaracterizes the causes of US debt	3-b	[Democratic] Senator misleads on which president signed the Wall Street bailout into law

parties (e.g., R-D-R-D-R-D). In consequence, the order of headlines topics (party) in Version 1 looked like: 1-a (R), A, 2-a (D), 3-a (R), 1-b (R), B, 2-b (D), 3-b (D).

2. For Version 2, the party reference of partisan topics was reversed. Then the positions of the first three partisan headlines (1-a – 3-a) and the last three partisan headlines (2-b – 3-b) were switched. Thus, the order of headlines topics (party) in Version 2 looked like: 1-b (D), B, 2-b (R), 3-b (R), 1-a (D), A, 2-a (R), 3-a (D).
3. The content and order of neutral headlines (A, B) were kept the same across variations.

(2) Republican-challenging Asymmetric Corrections (Treatment Condition 1)

Within asymmetric treatment conditions (Treatment conditions 1 and 2), two randomized versions were designed in a way that the topic-party associations were reversed for (1) one of the partisan topics with a greater partisan gap (immigration) or (2) one of the partisan topics with a smaller partisan gap (foreign debt), in order to minimize the influence of specific topic-party associations. The ways in which headlines were designed are explained below.

1. Adopting Version 1 headlines of Baseline Condition, one of the highly partisan headlines (immigration) is set to correct Democrats, while all other headlines correct Republicans.
2. Adopting Version 2 headlines of Baseline Condition, one of the weakly partisan headlines (US debt) is set to correct Democrats, while all other headlines correct Republicans.

Table S10: Republican-challenging Asymmetric Corrections (Treatment Condition 1)

Version 1		Version 2	
1-a	What [Republicans] have wrong about the pregnancy rate among black teenagers	1-b	What [Republicans] get incorrect about the number of abortions over time
2-a	[Democratic] National Committee pursues a policy for the worse on the deportation of illegal immigrants	2-b	[Republican] Party takes the wrong path for the policy on gun homicide
A	Exercise can greatly reduce your risk of cancer and heart disease	A	Exercise can greatly reduce your risk of cancer and heart disease
3-a	[Republican] Senator misleads on which president signed the Wall Street bailout into law	3-b	[Democratic] governor mischaracterizes the causes of US debt
1-b	What [Republicans] get incorrect about the number of abortions over time	1-a	What [Republicans] have wrong about the pregnancy rate among black teenagers
2-b	[Republican] Party takes the wrong path for the policy on gun homicide	2-b	[Republican] National Committee pursues a policy for the worse on the deportation of illegal immigrants
B	Google to spend \$10 billion on offices, data centers in US this year	B	Google to spend \$10 billion on offices, data centers in US this year
3-b	[Republican] governor mischaracterizes the causes of US debt	3-b	[Republican] Senator misleads on which president signed the Wall Street bailout into law

3. This treatment condition was considered as *uncongenial* asymmetry when assigned to Republicans and *congenial* asymmetry when assigned to Democrats.

(3) Democrat-challenging Asymmetric Corrections (Treatment Condition 2)

1. Adopting Version 1 headlines of Baseline Condition, one of the highly partisan headlines (immigration) is set to correct Republicans, while all other headlines correct Democrats.
2. Adopting Version 2 headlines of Baseline Condition, one of the weakly partisan headlines (US foreign debt) is set to correct Republicans, while all other headlines correct Democrats.
3. This treatment condition was considered as *uncongenial* asymmetry when assigned to Democrats and *congenial* asymmetry when assigned to Republicans.

Table S11: Democrat-challenging Asymmetric Corrections (Treatment Condition 2)

Version 1		Version 2	
1-a	What [Democrats] have wrong about the pregnancy rate among black teenagers	1-b	What [Democrats] get incorrect about the number of abortions over time
2-a	[Republican] National Committee pursues a policy for the worse on the deportation of illegal immigrants	2-b	[Democratic] Party takes the wrong path for the policy on gun homicide
A	Exercise can greatly reduce your risk of cancer and heart disease	A	Exercise can greatly reduce your risk of cancer and heart disease
3-a	[Democratic] Senator misleads on which president signed the Wall Street bailout into law	3-b	[Republican] governor mischaracterizes the causes of US debt
1-b	What [Democrats] get incorrect about the number of abortions over time	1-a	What [Democrats] have wrong about the pregnancy rate among black teenagers
2-b	[Democratic] Party takes the wrong path for the policy on gun homicide	2-b	[Democartic] National Committee pursues a policy for the worse on the deportation of illegal immigrants
B	Google to spend \$10 billion on offices, data centers in US this year	B	Google to spend \$10 billion on offices, data centers in US this year
3-b	[Democratic] governor mischaracterizes the causes of US debt	3-b	[Democratic] Senator misleads on which president signed the Wall Street bailout into law

(4) Symmetric Coverage with Neutral Language (Exploratory Condition)

Taking the headline orders of Versions 1 and 2 in Baseline Condition, headlines language for partisan topics was adjusted be non-judgmental and neutral.

Table S12: Symmetric Coverage with Neutral Language (Exploratory Treatment Condition)

Version 1		Version 2	
1-a	What [Republicans] claim about the pregnancy rate among black teenagers	1-b	What [Democrats] say about the number of abortions over time
2-a	[Democratic] National Committee's policy proposals for the deportation of illegal immigrants	2-b	[Republican] Party's approach for the policy on gun homicide
A	Exercise can greatly reduce your risk of cancer and heart disease	A	Exercise can greatly reduce your risk of cancer and heart disease
3-a	[Republican] Senator comments about which president signed the Wall Street bailout into law	3-b	How a [Republicans] governor characterizes the causes of US debt
1-b	What [Republicans] say about the number of abortions over time	1-a	What [Democrats] claim about the pregnancy rate among black teenagers
2-b	[Democratic] Party's approaches to the policy on gun homicide	2-b	[Republican] National Committee policy proposals for the deportation of illegal immigrants
B	Google to spend \$10 billion on offices, data centers in US this year	B	Google to spend \$10 billion on offices, data centers in US this year
3-b	How a [Democratic] governor characterizes the causes of US debt	3-b	[Democratic] Senator comments about which president signed the Wall Street bailout into law

2.2 Study 2

In Study 2, participants were randomly assigned to one of the three experimental conditions:

- Symmetric corrections (Baseline)
- Republican-challenging asymmetric corrections (Treatment 1)
- Democrat-challenging asymmetric corrections (Treatment 2)

For Treatment Conditions 1 and 2, participants were considered as being assigned to “uncongenial asymmetry” treatment if five headlines corrected in-group (e.g., a Democrat assigned to Democrat-leaning asymmetry), whereas they were considered as assigned to “congenial asymmetry” treatment if five headlines corrected out-group (e.g., a Democrat assigned to Republican-leaning asymmetry).

The following design improvements were made compared to Study 1:

- Headline language is strictly factual for all headlines, none is subjective. The headlines also incorporate actual phrases used in the actual articles.
- The topics of bipartisan misstatements are updated to more recent ones (2017-2022) Table S13. The topics for Study 1, selected from Wood and Porter (2019), were from the early 2010s.
- A total of 6 headlines were used, without any non-political topics.

Table S13: Reference Articles for Experimental Design for Study 2: FactCheck.org

Headline Topic	Reference Article published by FactCheck.org	Month/Year
Immigration	The Facts on the Increase in Illegal Immigration	March 2021
Gun Control	Facts on the House Gun Bills	March 2021
Health Insurance	Spinning CBO Insurance Estimate	June 2017
Voting Law	Fact Checking Claims about the Georgia Voting Law	May 2021
Jobs	Both Sides Spinning Jobs Report	May 2021
Oil Production	Both Sides Spin Domestic Oil Production	March 2022

Note: The title of headline is a hyperlink to the original article published by FactCheck.org

Below, I explain the rationales for the study design:

- In devising the language for each headline, I referred to actual fact-checks published by FactCheck.org on 6 topics. I intentionally chose the fact-checks in which both Democrats and Republicans have made misstatements on the same topic and context.
- The choice of four sets of comparable topics Table S14 is based on the nature of topics and the relative degree of politicization.

Table S14: Headline Wordings for Study 2

Partisan Gap	Topic/Headline	Topic/Headline
Higher	A. Immigration [Democrats / Republicans] Wrong on Illegal Immigration Statistics on Unaccompanied Children	B. Gun control A House [Democrat / Republican] Misleads on House Gun Bills and Gun Violence
Moderate	C. Health insurance A [Democratic / Republican] Senator Distorts CBO’s Estimate of Americans without Health Insurance	D. Voting law A [Democratic / Republican] Governor’s Inaccurate Claim about the New Voting Law
Smaller	E. Jobs [Democrats / Republicans] Spin the Bureau of Labor Statistics on Job Growth	F. Oil production [Democrats’ / Republicans’] Baseless Claim about Domestic Oil Production

- ◇ Highly politicized topics included immigration and gun control where public perceptions are divisive across party lines (Wood and Porter 2019). Instead of the misstatements from 2014-2015 used in Wood and Porter (2019), I used more recent misstatements on unaccompanied children immigrants and background checks for gun (both from 2021).
- ◇ For moderately politicized issues, I use voting law and health insurance. Each headline is based on fact-checks from 2017 and 2021.
- ◇ On economic issues, public perceptions are less polarized across party lines (Wood and Porter 2019). Instead of the topics from 2008 - 2012 (Wall Street Bailout, US foreign debt) used in Wood and Porter (2019), I used more recent topics on jobs performance and oil production.
- ◇ Originally, I also considered [COVID-19 relief](#) and fracking ([Democratic misstatement](#), [Republican misstatement](#)) as bipartisan misstatements previously corrected by FactCheck.org. They were dropped given that both topics might seem outdated, and because COVID-19 has become quite polarized among the public.
- URLs to the original fact-checking articles are provided in Table S13. In all 6 topics, the claims made by Republican and Democratic figures were fact-checked as false by FactCheck.org. Each side’s fact-checked claim is not always perfectly parallel, but they were fact-checked under the same context and serves the purpose of designing symmetric versus asymmetric corrections across different topics.

To make sure that the results do not hinge on specific party-topic associations or the order of headlines,

- The composition of headlines (i.e., party reference in each headline) was randomized to be one of the six variations per condition in Table S15. The order of headlines was randomized.
- In the asymmetric correction conditions (Treatments 1 and 2), the topic-party associations were fully randomized.
- In the baseline condition (i.e., symmetric corrections), the composition of headlines was randomized in a way that: Each party is corrected on one of the highly polarized topics (either A or B), one of the moderately polarized topics (either C or D), and one of the less polarized topics (either E or F).

Table S15: Randomized variations of topic-party associations per experimental condition

Variation	Symmetric (Baseline)						Republican-Challenging Asymmetry						Democrat-Challenging Asymmetry					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
A. Immigration	R	D	R	D	R	D	D	R	R	R	R	R	R	D	D	D	D	D
B. Gun Control	D	R	D	R	D	R	R	D	R	R	R	R	D	R	D	D	D	D
C. Health Insurance	R	D	R	D	D	R	R	R	D	R	R	R	D	D	R	D	D	D
D. Voting Law	D	R	D	R	R	D	R	R	R	D	R	R	D	D	D	R	D	D
E. Jobs	R	D	D	R	D	R	R	R	R	R	D	R	D	D	D	D	R	D
F. Oil Production	D	R	R	D	R	D	R	R	R	R	R	D	D	D	D	D	D	R

Note: ‘R’ indicates the headline referred to Republican(s) as the source of misstatement. ‘D’ indicates the headline referred to Democrat(s) as the source of misstatement.

2.3 Manipulation Check

Per Hauser, Ellsworth and Gonzalez (2018)’s recommendation not to place manipulation check between the treatment and outcome variables (in order to prevent any unintended influence of manipulation check on observed outcomes), I placed the manipulation check question at the very end of the survey. At the end of the survey, the following question was asked to assess how well the key differences across experimental conditions were perceived by the respondents:

“Thinking back to the list of headlines that you saw, which of the following best describes those headlines?”

- Most of the headlines were critical of Republicans (1)
- Most of the headlines were critical of Democrats (2)
- Roughly equal numbers of headlines were critical of Democrats and Republicans (3)
- Most of the headlines were NOT critical of either political party (4)

Note: The order between (1) and (2) was randomized.

As shown in Table S16 and S17, responses to the manipulation check across different experimental conditions indicate that the key experimental manipulation—the asymmetry in correcting partisan misstatements—was effectively conveyed in both Studies 1 and 2. In all conditions, a majority of respondents responded in a way that was consistent with the intentions of the study design. When analyzing the data, I did not drop respondents who failed the manipulation check, because Aronow, Baron and Pinson (2019) suggested that excluding respondents who failed the manipulation check can result in biased results.

Table S16: Manipulation Check by Experimental Conditions: Study 1

	Experimental Conditions				Total
	Symmetric corrections (baseline)	Republican- challenging asymmetry	Democrat- challenging asymmetry	Symmetric, neutral language	
Most headlines critical of R	8.2	66.9	6.1	16.1	24.2
Most headlines critical of D	7.7	4.5	64.2	8.9	21.2
Roughly equal numbers critical of D and R	79.2	21.3	26.3	53.9	45.4
Most NOT critical of either	4.9	7.3	3.4	21.1	9.2
N	183	178	179	180	720

Note: Entries are the percentage of each response option per experimental condition.

Table S17: Manipulation Check by Experimental Conditions: Study 2

	Experimental Conditions				Total
	Symmetric corrections (baseline)	Republican- challenging asymmetry	Democrat- challenging asymmetry		
Most headlines critical of R	8.9	81.4	4.8		31.5
Most headlines critical of D	8.9	2.8	81.5		31.0
Roughly equal numbers critical of D and R	80.7	14.9	12.5		36.3
Most NOT critical of either	1.5	1.0	1.3		1.3
N	404	397	399		1,200

Note: Entries are the percentage of each response option per experimental condition.

In the baseline condition that was designed to be symmetric corrections (an equal number of headlines corrected each party), 79.2% (Study 1) and 80.7 % (Study 2) of the respondents said they were given a list where roughly equal numbers of headlines were critical of Democrats and Republicans. In the treatment condition that was designed to be Republican-challenging asymmetric corrections (five headlines corrected Republicans and one corrected Democrats), 66.9% (Study 1) and 81.4% (Study 2) of respondents recalled that most headlines were critical of Republicans. Among respondents assigned to the treatment condition

of Democratic-challenging asymmetric corrections (five headlines corrected Democrats and one corrected Republicans), 64.2% (Study 1) and 81.5% (Study 2) recalled they were given a list where most headlines were critical of Democrats.

In Study 1, for the exploratory treatment condition that was designed to be symmetric corrections with neutral language, a greater percentage of respondents (21.2%) recalled that most headlines were not critical of either party, compared to symmetric coverage (baseline, 4.9%). Interestingly, 53.9% in this neutral language condition still recalled that roughly equal numbers of headlines were critical of each party, indicating that many respondents assumed that the headlines with neutral language were critical of political parties.

3 Main Analyses

3.1 Perceived Blame Attribution for Misinformation

Table S18: Perceived Blame Attribution for Political Misinformation

	Both Parties	Mostly Democrats	Mostly Republicans	Neither	N
Study 2 Pilot					
Democrat	28.3	8.0	55.5	8.2	449
Independent	49.7	15.7	15.0	19.6	153
Republican	38.2	46.2	6.3	9.3	398
Study 2					
Democrat	24.8	1.5	58.5	15.2	600
Republican	47.2	39.3	3.0	10.5	600

Note: Entries are the percentages of individuals who blame Both Parties, Democrats, Republicans, or Neither party respectively.

Table S19: Correlates of Blaming Opposing Party over Both Parties for Misinformation (Study 2)

	Democrat	Republican	Democrat	Republican
Anger	1.30** (0.56)	1.26*** (0.44)	0.99* (0.58)	0.99** (0.46)
Anxiety	0.39 (0.52)	-0.10 (0.44)	0.75 (0.55)	0.35 (0.46)
Fox News	-1.04*** (0.25)	0.77*** (0.21)	-1.11*** (0.26)	0.69*** (0.21)
MSNBC	0.85*** (0.22)	-0.86*** (0.22)	0.80*** (0.23)	-0.75*** (0.22)
Age			0.02** (0.01)	0.02*** (0.01)
Gender-Female			-0.80*** (0.22)	-0.62*** (0.20)
Gender-Other			0.74 (1.09)	
College			0.30 (0.21)	-0.52*** (0.19)
Intercept	-0.30 (0.29)	-1.11*** (0.25)	-0.69 (0.44)	-1.50*** (0.40)
AIC	574.33	684.36	560.63	666.45
BIC	595.40	705.62	598.57	700.46
Log Likelihood	-282.16	-337.18	-271.32	-325.22
Deviance	564.33	674.36	542.63	650.45
N	500	519	500	519

Note: Estimates are logistic regression coefficients, indicating the difference in log odds (equivalent to log-transformed odds ratio) of attributing misinformation to opposing party (1) over both parties (0) given one unit increase in independent variables. *Anger* and *Anxiety* toward misinformation were measured on a 5-pt scale (“not at all”-“extremely”). *Fox News* and *MSNBC* are binary variables, 1 if a respondent visited the outlet at least once in the past week, 0 otherwise. For *Gender*, the reference category is male. All variables were coded to range from 0 to 1. * $p < .10$; ** $p < .05$; *** $p < .01$.

3.2 Asymmetric Correction Effects

Table S20: Asymmetric Correction Effects on Perceived News Credibility

	Study 1	Study 2
Uncongenial	−0.18*** (0.03)	−0.15*** (0.02)
Congenial	−0.05* (0.03)	0.01 (0.02)
Rep	0.05 (0.03)	0.02 (0.02)
Uncongenial x Rep	0.05 (0.05)	−0.01 (0.03)
Congenial x Rep	−0.05 (0.05)	−0.09*** (0.03)
Intercept	0.38*** (0.02)	0.31*** (0.02)
Adjusted R^2	.08	.09
N	540	1,199

Note: Entries are the ordinary least squares (OLS) regression coefficients with robust standard errors in parentheses. *Uncongenial* = 1 if ingroup-challenging asymmetry condition, 0 otherwise; *Congenial* = 1 if outgroup-challenging asymmetry condition, 0 otherwise. *Rep* = 1 if Republican; =0 if Democrat. All variables were coded to range from 0 to 1. * $p < .10$; ** $p < .05$; *** $p < .01$.

Average conditional treatment effects by partisan groups can be estimated by conducting OLS analysis by subgroup (Guess and Coppock 2020). In Table S21, coefficient estimates for the variables “Uncongenial” and “Congenial” indicate average conditional treatment effects of “uncongenial asymmetry” and “congenial asymmetry” compared to the baseline condition (“symmetric corrections”). The magnitude and statistical significance of treatment effects calculated by these coefficients are the same with the estimates calculated from the pooled model in Table S20.

Table S21: Conditional Effects of Asymmetric Correction on Perceived News Credibility: By Partisan Identity

	Study 1		Study 2	
	Democrats	Republicans	Democrats	Republicans
Uncongenial	−0.18*** (0.03)	−0.13*** (0.04)	−0.15*** (0.02)	−0.16*** (0.02)
Congenial	−0.05* (0.03)	−0.10*** (0.03)	0.01 (0.02)	−0.07*** (0.02)
Intercept	0.38*** (0.02)	0.43*** (0.02)	0.31*** (0.02)	0.33*** (0.02)
Adjusted R^2	.11	.05	.11	.08
N	268	272	600	599

Note: Entries are the ordinary least squares (OLS) regression coefficients with robust standard errors in parentheses. *Uncongenial* = 1 if ingroup-challenging asymmetry condition, 0 otherwise; *Congenial* = 1 if outgroup-challenging asymmetry condition, 0 otherwise. All variables were coded to range from 0 to 1. * $p < .10$; ** $p < .05$; *** $p < .01$.

Table S22: Heterogeneous Effects of Asymmetric Corrections on Perceived News Credibility: By Perceived Blame Attribution for Misinformation (Study 2)

	Blame Both Parties		Blame Opposing Party	
	Democrats	Republicans	Democrats	Republicans
Uncongenial	−0.11*** (0.04)	−0.17*** (0.03)	−0.20*** (0.02)	−0.16*** (0.03)
Congenial	−0.07* (0.04)	−0.13*** (0.03)	0.04 (0.03)	−0.01 (0.04)
Intercept	0.29*** (0.03)	0.35*** (0.03)	0.32*** (0.02)	0.30*** (0.02)
Adjusted R^2	.05	.10	.20	.10
N	149	283	351	235

Note: Entries are the ordinary least squares (OLS) regression coefficients with robust standard errors in parentheses. The first two columns (“Blame Both Parties”) are the results for individuals who blame both parties as similarly responsible for misinformation. The last two columns (“Blame Opposing Party”) present the results on individuals who blame the opposing party as primary source of misinformation. *Uncongenial* = 1 if ingroup-challenging asymmetry condition, 0 otherwise; *Congenial* = 1 if outgroup-challenging asymmetry condition, 0 otherwise. * $p < .10$; ** $p < .05$; *** $p < .01$.

4 Additional Analyses

4.1 Perceptions of Shared Interest and Expertise

Theoretically, source credibility is widely assumed to have two underlying dimensions (Hovland, Janis and Kelly 1953; Lupia and McCubbins 1998). According to Lupia (2016), perceived shared interest, or perceived trustworthiness, refers to the extent to which the listener and communicator want similar outcomes, whereas perceived expertise refers to the extent to which the speaker is knowledgeable about the consequences of the listener’s choice (pp. 87-88). However, because the literature lacks clear guidance on how to measure source credibility, source credibility has been often measured in ways not consistent with its two-dimensional concept.

One major way to measure source credibility perceptions is in the context of news sources, which is the main focus of this study. Under this context, the qualities of being accurate, fair, or complete are important traits expected for credible news sources. These expected traits of credible news informed the development of a news credibility scale (Gaziano and McGrath 1986; Meyer 1988). Although this scale, being one-dimensional, does not neatly fit with the two-dimensional conceptualization of source credibility, it has been widely adopted to measure perceived credibility of news messages or outlets (e.g., Flanagin and Metzger 2000; Tsfati 2010; Pingree et al. 2013; Turcotte et al. 2015). Given this study focuses on trust in news sources, perceived news credibility is mainly used to test the proposed hypotheses.

When source credibility is viewed as a precondition for persuasion, it becomes crucial to consider its two dimensions. In such contexts, credibility perception or persuasion is assumed to require a non-zero, positive amount of shared interest and expertise from the communicator (Hovland, Janis and Kelly 1953; Lupia and McCubbins 1998). By examining how asymmetric corrections affect perceived shared interest and expertise, I examine whether the asymmetry in misinformation corrections affects a source’s potential persuasive effects.

To measure perceptions of shared interest and expertise, the two underlying dimensions of source credibility, in Study 1, I adapted question wordings from Lupia and McCubbins (1998, p. 188). Perceived shared interest was measured as the degree to which participants perceived the authors of the website as agreeing with them on most political issues on a five-point scale (“never” - “always”). Perceived expertise was measured as the degree to which participants perceived the authors of the website as knowledgeable about how political decisions affect people on a five-point scale (“nothing at all” - “a great deal”).

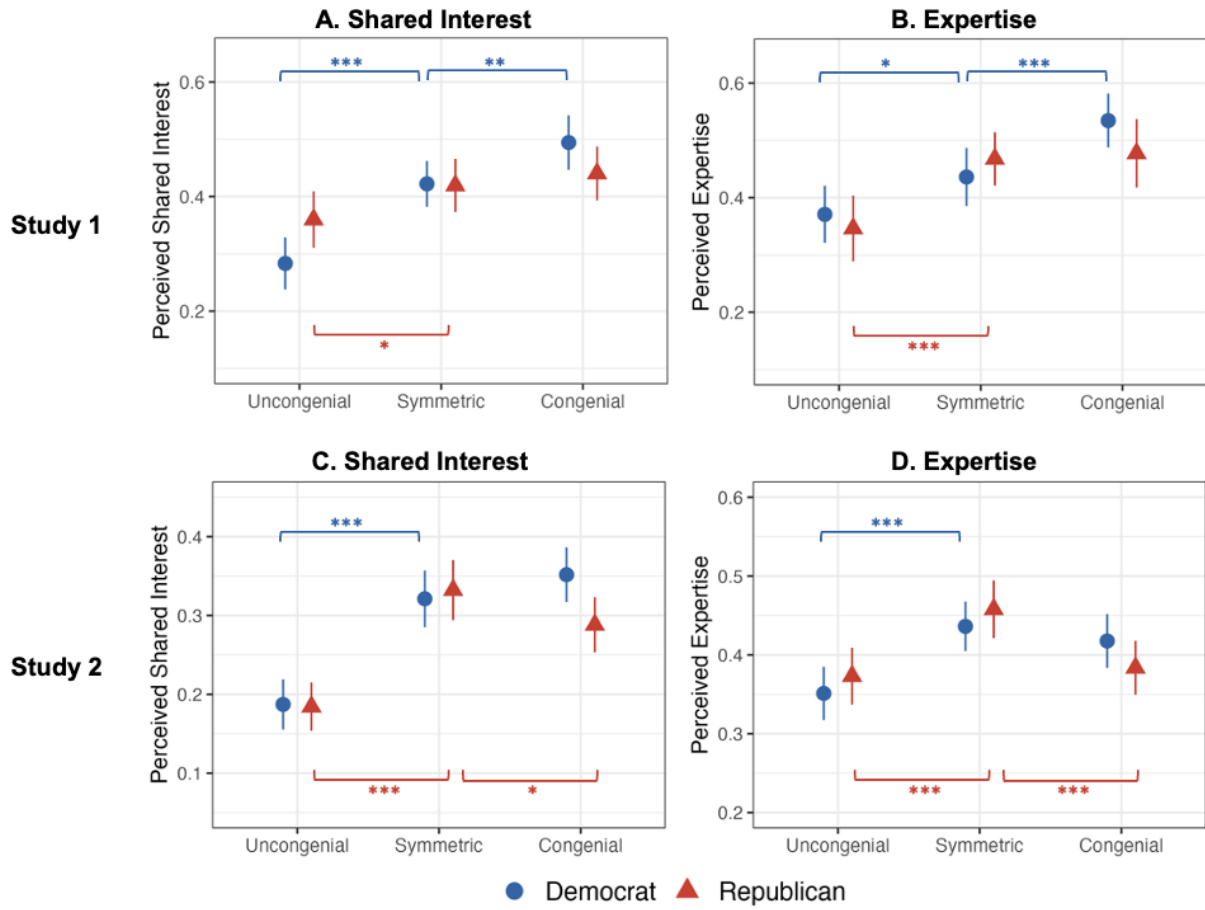
In Study 2, instead of adopting question wordings in Lupia and McCubbins (1998) that were specific to political topics, I used items that are applicable to news sources in broader

contexts. Participants indicated the degree to which they perceived the news sources’s reporters “are concerned about public interest,” “watch out for your interest” (Meyer 1988), “are well trained,” and “are experienced” (Jensen 2008), on a five-point (“not at all” - “a great deal”). The first two items constituted the measure of perceived shared interest ($\alpha = .86$), and the latter two constructed the measure of perceived expertise ($\alpha = .89$).

In both Studies 1 and 2, compared to symmetric corrections, uncongenial asymmetry decreased both dimensions of source credibility—perceived shared interest and expertise—across partisan groups (treatment effects were statistically significant as shown in Figure S2). But the effects of congenial asymmetry showed partisan differences between Study 1 and 2. In Study 1, congenial asymmetry improved the perceptions of shared interest and expertise of the news source among Democrats ($ps < .01$) but not Republicans. In Study 2, on the other hand, congenial asymmetry reduced perceived shared interest ($p < .10$) and expertise ($p < .01$) among Republicans, but not Democrats.

Future study might be helpful to explore potential explanations for the effects of congenial asymmetry: why it varies across partisan groups and why it varies across the two studies. One conjecture is that, considering the observations of the Republican-leaning asymmetry in misinformation (Berinsky 2023; Müller 2021), Democrats may not discount the credibility of a news source that heavily corrects Republican misstatements (i.e., congenial asymmetry for Democrats). At the same time, considering the time gap between the two studies (Study 1 in 2020, Study 2 in 2024), it is possible that more Republicans were also increasingly more exposed to or learned about the prevalence of conservative-leaning misinformation, and thus, in Study 2, hold more negative views about a news source that heavily corrects Democratic misstatements (i.e., congenial asymmetry for Republicans).

Figure S2: Asymmetric Correction Effects on Perceived Shared Interest and Expertise



Note: Means and 95% confidence intervals by experimental conditions. *Uncongenial:* Asymmetric corrections of in-group misinformation; *Symmetric:* Balanced corrections (baseline); *Congenial:* Asymmetric corrections of out-group misinformation. Perceived news credibility was coded to range from 0 to 1. Asterisks indicate statistically significant treatment effects compared to the baseline condition; $*p < .10$; $**p < .05$; $***p < .01$. Table S23 presents these results in tabular form.

Table S23: Asymmetric Correction Effects on Perceived Shared Interest and Expertise

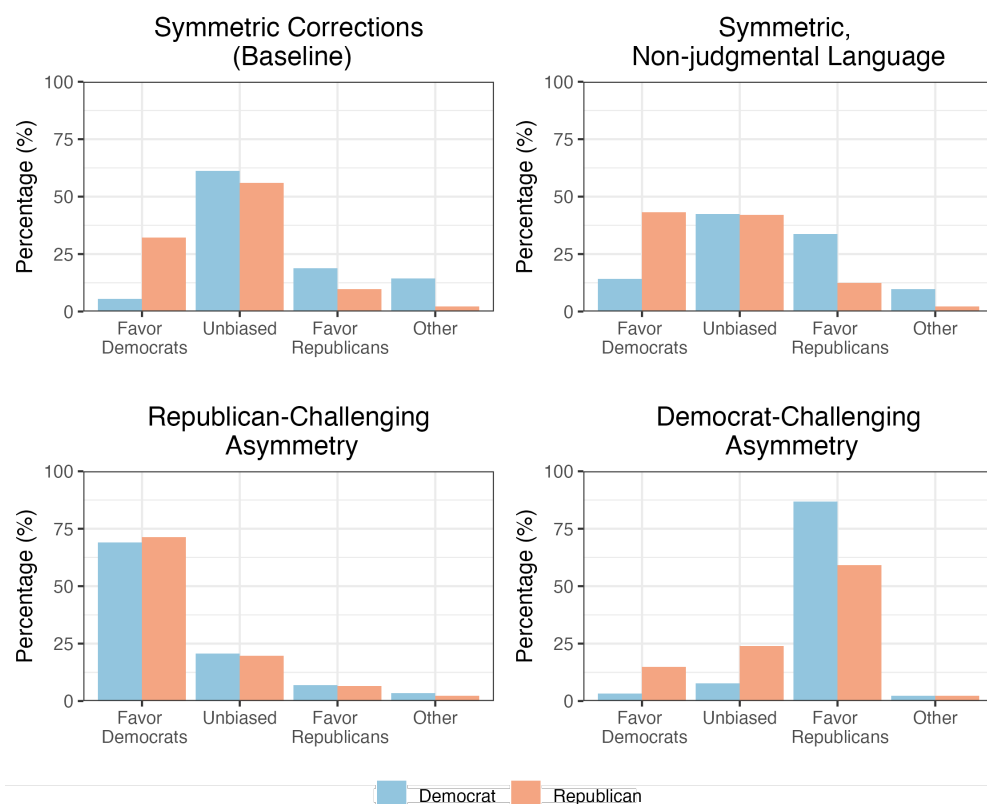
	Study 1		Study 2	
	Shared Interest	Expertise	Shared Interest	Expertise
Uncongenial	−0.14*** (0.03)	−0.07* (0.04)	−0.13*** (0.02)	−0.09*** (0.02)
Congenial	0.07** (0.03)	0.10*** (0.04)	0.03 (0.03)	−0.02 (0.02)
Rep	−0.003 (0.03)	0.03 (0.03)	0.01 (0.03)	0.02 (0.02)
Uncongenial x Rep	0.08* (0.05)	−0.06 (0.05)	−0.01 (0.03)	0.0003 (0.04)
Congenial x Rep	−0.05 (0.05)	−0.09* (0.05)	−0.07** (0.04)	−0.06 (0.03)
Intercept	0.42*** (0.02)	0.44*** (0.03)	0.32*** (0.02)	0.44*** (0.02)
Adjusted R^2	.07	.05	.06	.02
N	539	540	1200	1200

Note: Entries are the ordinary least squares (OLS) regression coefficients with robust standard errors in parentheses. *Uncongenial* = 1 if ingroup-challenging asymmetry condition, 0 otherwise; *Congenial* = 1 if outgroup-challenging asymmetry condition, 0 otherwise. *Rep* = 1 if Republican; =0 if Democrat. All variables were coded to range from 0 to 1. * $p < .10$; ** $p < .05$; *** $p < .01$.

4.2 Perceived Source Bias

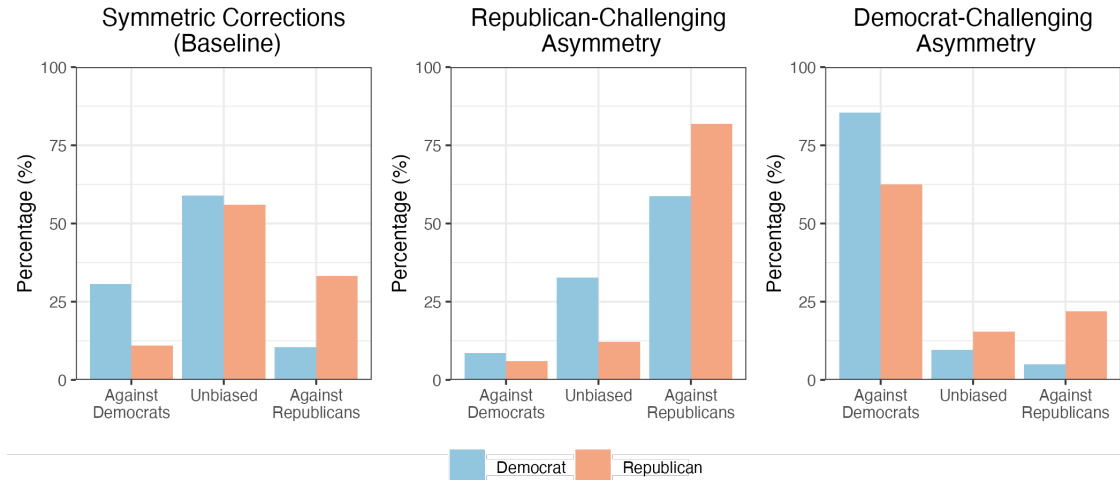
To better understand how partisans assess a source that corrects one party more heavily for misstatements, I examine how respondents assess source bias under different experimental conditions. After answering the questions on source credibility, in Study 1, participants indicated whether they thought the news source tended to be unbiased or biased when presenting information, with four possible answer choices: 1) not biased, 2) biased in favor of Republicans, 3) biased in favor of Democrats, 4) other (open-ended response). In Study 2, the question was slightly revised. The fourth open-ended response option was removed for simplicity. Also, the question asked whether the coverage was biased “against” a certain party, rather than “in favor of” a certain party, given that the treatment consisted of headlines challenging one of the parties.

Figure S3: Perceptions of Source Bias by Experimental Conditions (Study 1)



As shown in Figures S3 and S4, a majority of respondents found symmetric corrections (baseline) to be unbiased, Republican-challenging asymmetry to be biased in favor of Democrats (Study 1) or against Republicans (Study 2), and Democrat-challenging asymmetry to be biased in favor of Republicans (Study 1) or against Democrats (Study 2). In

Figure S4: Perceptions of Source Bias by Experimental Conditions (Study 2)



Study 1, under symmetric coverage with neutral language (exploratory treatment condition), compared to symmetric corrections with critical language (baseline), fewer people found the source to be unbiased, and more people found the source to be biased in favor of the opposite party. These results suggest that partisans are likely perceive news headlines with neutral language as critical of their own party, consistent with hostile media perception (Gunther and Schmitt 2004; Vallone, Ross and Lepper 1985).

4.3 Distribution of Demographics

Table S24: Distribution of Demographics by Experimental Conditions: Study 1

	Experimental Conditions				Total
	Symmetric coverage (baseline)	Uncongenial asymmetry	Congenial asymmetry	Symmetric, neutral language	
Age					
18-24	23.0	18.1	21.7	26.1	22.2
25-34	40.4	33.0	33.1	35.6	35.6
35-44	14.8	24.7	19.4	17.8	19.2
45-54	14.2	13.2	12.0	11.1	12.6
55-64	6.0	7.1	12.0	5.6	7.6
65-	1.6	3.8	1.7	3.9	2.8
Gender					
Female	49.7	42.3	47.4	50.6	47.5
Male	48.1	56.6	52.0	47.8	51.1
Other	2.2	1.1	0.6	1.7	1.4
Education					
No college degree	33.9	34.6	36.0	37.8	35.6
College degree	66.1	65.4	64.0	62.2	64.4
Partisanship					
Democrat	49.2	50.0	49.7	51.1	50.0
Republican	50.8	50.0	50.3	48.9	50.0
N	183	182	175	180	720

Note: The entries are in percentage (%), except for the final row (“N”) that indicates the number of respondents.

Table S25: Distribution of Demographics: Study 2 Pilot

	Percentage
Age	
18-24	4.0
25-34	12.7
35-44	20.2
45-54	20.3
55-64	20.0
65-	22.9
Gender	
Female	52.6
Male	46.4
Other	1.0
Education	
No college degree	58.7
College degree	41.3
Partisanship	
Democrat	44.9
Republican	39.8
Independent	15.3
N	1000

Note: The entries are in percentage (%), except for the final row (“N”) that indicates the number of respondents. Missing responses for *Age* (n=4) were excluded when calculating the percentages.

Table S26: Distribution of Demographics by Experimental Conditions: Study 2

	Experimental Conditions			Total
	Symmetric coverage (baseline)	Uncongenial asymmetry	Congenial asymmetry	
Age				
18-24	5.7	7.1	7.8	6.8
25-34	25.7	25.4	25.8	25.7
35-44	24.8	21.2	23.8	23.2
45-54	20.8	21.4	21.8	21.3
55-64	13.6	15.6	13.8	14.3
65-	9.4	9.3	7.0	8.6
Gender				
Female	52.0	48.9	52.6	51.2
Male	47.5	48.9	46.1	47.5
Other	0.5	2.3	1.3	1.3
Education				
No college degree	50.5	45.6	49.4	48.5
College degree	49.5	54.4	50.6	51.5
Partisanship				
Democrat	50.0	50.1	49.9	50.0
Republican	50.0	49.9	50.1	50.0
N	404	397	399	1200

Note: The entries are in percentage (%), except for the final row (“N”) that indicates the number of respondents.

4.4 Exploratory Treatment Condition: Effects of Neutral Headline Language

In Study 1, there was a fourth randomized condition—symmetric coverage with neutral headline language—as an exploratory treatment. The purpose of the fourth condition was to explore the impact of headline language: critical language versus neutral language. Because some journalists fear that arbitrating who is right or wrong would risk the reputation of objective journalism (Thorson 2018), and because some of the stimulus headlines in Study 1 took a subjective tone, there could be a concern that the critical language may negatively affect credibility assessments. To test this concern, in the exploratory condition, the six partisan headlines were revised to employ neutral language as shown in Table S27. The headlines employing neutral language simply introduced the topic and the party involved, absent any accuracy judgments. To compare with the baseline condition, this exploratory condition included symmetric coverage of partisan misstatements, with three out of six partisan headlines referring to each party. The order of headlines were randomized in the same manner as explained in Table S9.

Table S27: Headlines for the Exploratory Treatment Condition (Neutral Language)

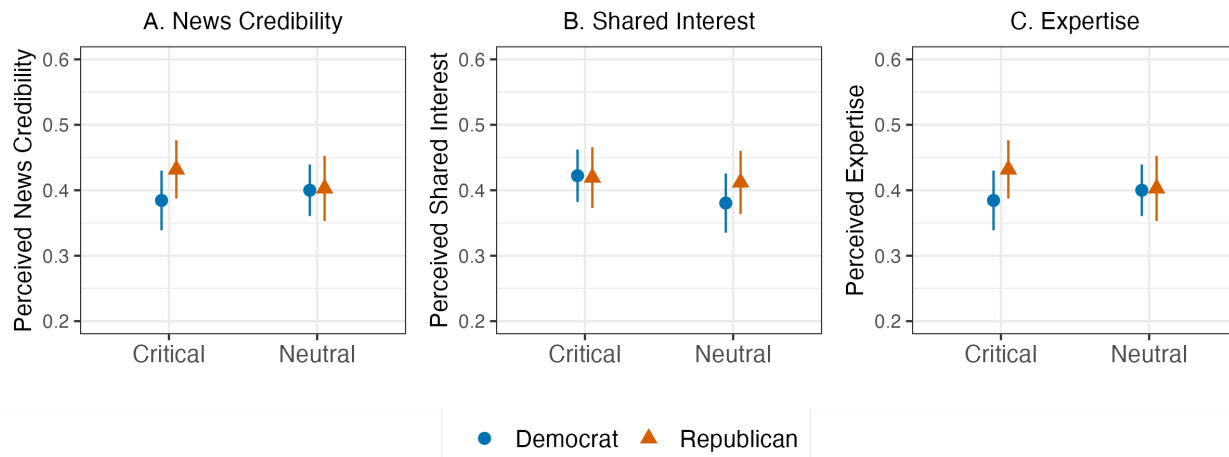
Partisan	• What [Democrats/Republicans] claim about the pregnancy rate among black teenagers
	• [Democratic/Republican] National Committee’s policy proposals for the deportation of illegal immigrants
	• [Democratic/Republican] Senator comments about which president signed the Wall Street bailout into law
	• What [Democrats/Republicans] say about the number of abortions over time
	• [Democratic/Republican] Party’s approaches to the policy on gun homicide
	• How a [Democratic/Republican] governor characterizes the causes of US debt
Neutral	• Exercise can greatly reduce your risk of cancer and heart disease
	• Google to spend \$10 billion on offices, data centers in US this year

Note: Bolded texts indicate neutral language. None of the text was bolded in the actual treatment.

As shown in Figure S5, when the symmetric corrections with critical language (baseline) is compared with the symmetric coverage with neutral language, there is no statistically significant difference in perceived news credibility (Democrats = 0.02, $p = .61$; Republicans = -0.03 , $p = .40$), shared interest (Democrats = -0.04 , $p = .18$; Republicans = -0.01 , $p = .83$), and expertise (Democrats = -0.02 , $p = .62$; Republicans = -0.04 , $p = .30$). These results suggest that, under symmetric coverage, neutral language likely has minimal impact on source assessments compared to critical language.

Given symmetric coverage of political parties, partisans are largely indifferent to critical and neutral language. This finding suggests that symmetric coverage may help maintain perceived source credibility when correcting misinformation. Under symmetric coverage, critical

Figure S5: Perceptions of News Credibility, Shared Interest, and Expertise by Headline Language Conditions



Note: Means and 95% confidence intervals by experimental conditions. *Critical* = 1 if symmetric, critical language condition (baseline), 0 otherwise; *Neutral* = 1 if symmetric, neutral language condition, 0 otherwise. All variables were coded to range from 0 to 1.

Table S28: Neutral Language Effects on Perceived News Credibility, Shared Interest, and Expertise

	Perceived News Credibility	Perceived Shared Interest	Perceived Expertise
Neutral	0.02 (0.03)	-0.04 (0.03)	-0.02 (0.04)
Rep	0.05 (0.03)	-0.003 (0.03)	0.03 (0.03)
Neutral x Rep	-0.04 (0.05)	0.03 (0.05)	-0.02 (0.05)
Constant	0.38*** (0.02)	0.42*** (0.02)	0.44*** (0.03)
N	363	363	363
Adjusted R ²	-0.002	-0.002	-0.003

Note: Entries are the ordinary least squares (OLS) regression coefficients with robust standard errors are in parentheses. *Neutral* = 1 if Symmetric, neutral language condition, 0 if Symmetric, critical language condition (baseline). *Rep* = 1 if Republican, 0 if Democrat. All variables were coded to range from 0 to 1. * $p < .1$; ** $p < .05$; *** $p < .01$.

language used to correct factual inaccuracies minimally harms credibility compared to neutral language. However, this study does not determine whether critical language would affect source assessments under asymmetric corrections or when particularly derogatory or mocking tones are used (e.g., 'whopper,' 'nonsensical,' 'amnesia'). Future research could further investigate these effects.

4.5 Correlates of Perceived Blame Attribution for Misinformation

Table S29: Correlates of Perceived Blame Attribution for Misinformation: Multinomial Logit (Study 2)

	Democrat	Republican
BlameOpp: (Intercept)	−0.26 (0.28)	−1.12*** (0.25)
BlameOpp: anger	1.18** (0.54)	1.27*** (0.44)
BlameOpp: anxiety	0.44 (0.52)	−0.13 (0.43)
BlameOpp: fox news	−1.01*** (0.25)	0.80*** (0.21)
BlameOpp: msnbc	0.85*** (0.22)	−0.88*** (0.22)
BlameOwn: (Intercept)	−2.39*** (0.84)	−2.76*** (0.58)
BlameOwn: anger	−3.12 (1.91)	−1.34 (1.21)
BlameOwn: anxiety	1.25 (1.81)	1.66 (1.21)
BlameOwn: fox news	0.45 (0.77)	0.12 (0.55)
BlameOwn: msnbc	0.73 (0.76)	−0.30 (0.57)
Neither: (Intercept)	−0.42 (0.34)	−1.54*** (0.34)
Neither: anger	−0.04 (0.71)	0.08 (0.67)
Neither: anxiety	−0.33 (0.69)	−0.24 (0.69)
Neither: fox news	−0.26 (0.31)	0.06 (0.32)
Neither: msnbc	0.46 (0.29)	0.15 (0.32)
AIC	1176.87	1256.15
BIC	1242.82	1322.11
Log Likelihood	−573.43	−613.08
Deviance	1146.87	1226.15
N	600	600
K	4	4

Note: Baseline category for the dependent variable is “blaming both parties” for misinformation. BlameOpp refers to blaming the opposing party. BlameOwn refers to blaming one’s own party. Neither refers to blaming neither party. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

4.6 Internal Reliability of News Credibility Scale

In Study 1, the five items in the news credibility scale were highly correlated with the underlying construct, as indicated by item-total correlations that ranged between .65 and .86 and Cronbach's α of .92. In confirmatory factor analysis, the one-dimensional solution had acceptable model fit (the recommended criteria for adequate fit are RMSEA and SRMR $\leq .08$, and CFI and TLI $\geq .90$; Bentler 1990; Brown 2015). All individual items meaningfully loaded on the latent factor as well, with factor loadings ranging between .67 and .92.

Table S30: Item-total Correlations and Confirmatory Factor Analysis for News Credibility Items (Study 1)

News credibility items	Item-total correlation	Factor loadings
Is fair	0.86	0.89
Is accurate	0.82	0.88
Is unbiased	0.65	0.67
Tells the whole story	0.80	0.85
Can be trusted	0.86	0.92
Cronbach's alpha = .92		RMSEA = .057; SRMR = .013; CFI = .996; TLI = .992

Note: Factor loading entries are standardized loadings.

In Study 2, as shown in Table S31, confirmatory factor analysis for the items for perceived news credibility, shared interest, and expertise indicates that the three-dimensional solution has acceptable model fit: RMSEA = .067, SRMR = .020, CFI = .985, TLI = .978 (recommended criteria for adequate fit are RMSEA and SRMR $\leq .08$, and CFI and TLI $\geq .90$; Bentler 1990; Brown 2015). All individual items meaningfully loaded on the relevant latent factor as well, with factor loadings ranging between .69 and .90.

Table S31: Confirmatory Factor Analysis of Source Credibility Items (Study 2)

		Factor loadings
News credibility		
	fair	0.88
	accurate	0.88
	unbiased	0.69
	tells the whole story	0.84
	can be trusted	0.90
Shared interest		
	concerned about the public interest	0.84
	watch out for your interests	0.90
Expertise		
	well trained	0.89
	experienced	0.90
CFA fit statistics		
	CFI	.985
	TLI	.978
	SRMR	.020
	RMSEA	.067
	$\chi^2(df)$	154.04 (24)
	N	1,199

Note: Factor loading entries are standardized loadings.

4.7 Power Analysis

To determine a sample size that ensures sufficient statistical power in Study 2, I conducted a power analysis using Study 1 data, focusing on the difference in means between two independent groups with the software G*Power (Faul et al. 2007; Perugini, Gallucci and Costantini 2018). When calculating effect sizes (cohen’s d), the sample sizes of control and treatment conditions were assumed to be roughly the same ($N1 = N2$), which was consistent with the study design. Because there was little reason to believe that standard deviation (SD) would significantly differ across conditions, SDs for control and treatment conditions were assumed to be same as the pooled standard deviation of those conditions. The effect sizes ranged from .25 to .85. Assuming two-tailed t-tests, $\alpha = .05$, power $(1 - \beta) = .80$, and allocation ratio $N2/N1 = 1$, the sample size per condition was calculated as shown in Table S32.

To ensure sufficient statistical power to detect the treatment effects of interest, the pre-registration for Study 2 specified a target sample size of 1,200 participants (200 partisans per condition $\times$ 2 partisan groups $\times$ 3 experimental conditions).

Table S32: Sample size per condition from power analysis

Partisan identity	Treatment	Effect size (d)	Sample size per condition
Republicans	Uncongenial asymmetry	• Effect size $d = .512$	61
		• Control mean (group 1) = 0.432	
		• Treatment mean (group 2) = 0.306	
		• SD1 = SD2 = 0.246	
	Congenial asymmetry	• Effect size $d = .479$	70
		• Control mean (group 1) = 0.432	
		• Treatment mean (group 2) = 0.328	
		• SD1 = SD2 = 0.217	
Democrats	Uncongenial asymmetry	• Effect size $d = .845$	23
		• Control mean (group 1) = 0.384	
		• Treatment mean (group 2) = 0.209	
		• SD1 = SD2 = 0.207	
	Congenial asymmetry	• Effect size $d = .250$	253
		• Control mean (group 1) = 0.384	
		• Treatment mean (group 2) = 0.330	
		• SD1 = SD2 = 0.216	

5 Survey Questionnaire

The study materials, data, and code will be made available at a public repository upon the publication of this paper. The questions most relevant to the current study are presented below.

At the beginning of the study, participants were given a consent form that described the study instrument (evaluating online news outlets, reading a set of headlines), ensured that their responses will be kept anonymous and that the study involved minimal risks. After the study, participants were told that the set of headlines they read did not appear on a single real website.

5.1 Study 1

a. Experimental Treatment

[Instruction]

Now, we'd like to ask you how you assess the website based on what you read in the headlines.

Now, we'd like to show you some headlines from an online news outlet and see what you think about them. We are specifically interested in how you evaluate **a news provider website** on the basis of **their headlines**.

[page break]

Before we start, please read the instructions below. It will help you understand what comes next.

- **One website will be randomly chosen** from a pool of online news outlets (This pool is irrelevant to the list of websites you saw earlier).
- **The name of the website will not be revealed** so you can focus on the news that the site reports.
- If the article is about a specific person, we **blocked out the person's name** so you can focus on the information in the headline.
- In the interest of saving your time, we will **display only the headlines** appearing on the front page, instead of asking you to read the whole articles.

***Note:** Once a website is randomly selected, **an arrow (→)** will appear below. Please click it to proceed.

[page break]

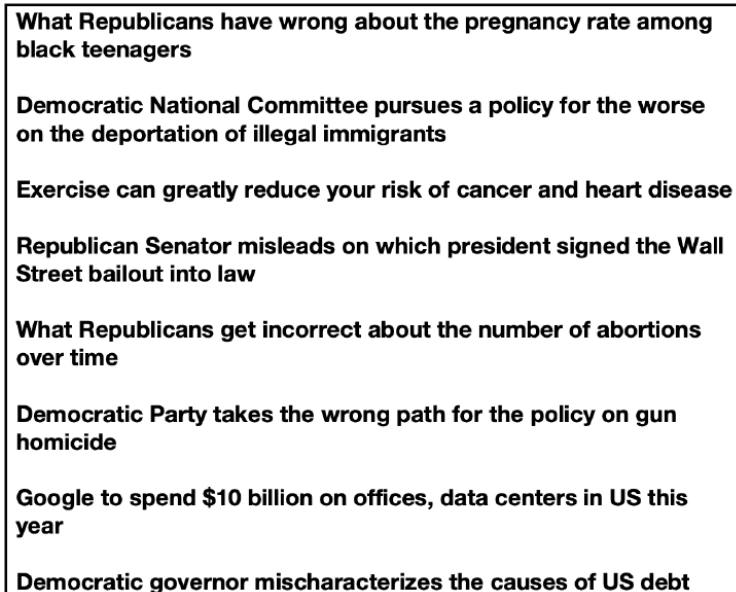
[Experimental Stimuli]

One website was chosen from a pool of online news outlets.

Here are **the headlines from the website**. Please take a moment to read the list.

In the next screen, we will ask you questions about **your evaluation of the website** based on what you saw.

Example screenshot of Baseline Condition, Version 1:



** Please note: You won't be able to refer back to these headlines once you reach the next screen. So please read the headlines carefully and make assessments of the website before you move on to the next screen.*

b. Post-treatment Questions

[Perceived News Credibility] How well do you think each of the following describes the website?

The website...	Not at all (1)	A little (2)	Moderately (3)	Very (4)	Extremely (5)
is fair (1)					
is accurate (2)					
is unbiased (3)					
tells the whole story (4)					
can be trusted (5)					

Note: The order of items was randomized across respondents.

[Perceived Shared Interest] On most political issues, how often would you say that you and the authors of the website agree?

- Never (1)
- Some of the time (2)
- About half of the time (3)
- Most of the time (4)
- Always (5)

[Perceived Expertise] How much would you say the authors of the website know about how political decisions affect people like you?

- Nothing at all (1)
- A little (2)
- A moderate amount (3)
- A lot (4)
- A great deal (5)

[Perceived source bias] Do you think the website tends to be unbiased or biased when presenting information?

- It is not biased (1)
- It is biased in favor of Republicans (2)
- It is biased in favor of Democrats (3)
- Other (4) -----

[page break]

[Manipulation Check] Thinking back to **the long list of headlines that you saw earlier** (8 headlines were presented on a single screen), which of the following best describes those headlines?

- Most of the headlines were critical of Republicans (1)
- Most of the headlines were critical of Democrats (2)
- Roughly equal numbers of headlines were critical of Democrats and Republicans (3)
- Most of the headlines were NOT critical of either political party (4)

Note: The order between (1) and (2) was randomized.

5.2 Study 2

a. Pre-treatment Questions

[Emotions toward Misinformation] How does misinformation in U.S. politics make you feel these days?

When I think about misinformation in U.S. politics, I feel...

	Not at all (1)	A little (2)	Somewhat (3)	Very (4)	Extremely (5)
Afraid					
Worried					
Nervous					
Outraged					
Angry					
Irritated					

Note: The order of items was randomized.

[page break]

[Perceived Blame Attribution for Misinformation] Which of the following do you think best describes misinformation in U.S. politics in the last 10 years?

- Democrats have produced the majority of political misinformation (1)
- Republicans have produced the majority of political misinformation (2)
- Democrats and Republicans have produced roughly an equal amount of political misinformation (3)
- Most political misinformation has been produced by non-partisan entities (neither Democrat nor Republican) (4)

[page break]

[News Source Recognition] Do you recognize each of the following news sources?

	Yes (1)	No (2)
CNN		
MSNBC		
Fox News		
Washington Post		

Note: The order of items was randomized.

[page break]

[News Source Usage] How often in the past week have you gotten political information from the following sources?

	Never (1)	Once (2)	Several times (3)	Every day (4)
CNN				
MSNBC				
Fox News				
Washington Post				

Note: Each row was shown if the respondent indicated that they recognized the news source in the preceding question.

b. Experimental Treatment

[Instruction]

On the next screen, you will see some headlines from a single news source.

If the article is about a specific person, we blocked out the person's name so you can focus on the information provided in the headlines.

Please take a moment to read the entire list carefully.

[page break]

[Experimental Stimuli]

The headlines from a single news source are listed below.

When reading the headlines, please think about how you would evaluate the news source (e.g., how credible, informative, accurate it seems to you).

Example screenshot of Baseline condition, Version 1:

Republicans Wrong on Illegal Immigration Statistics on Unaccompanied Children

A House Democrat Misleads on Gun Bills and Gun Violence

A Republican Senator Distorts CBO's Estimate of Americans without Health Insurance

A Democratic Governor's Inaccurate Claim about the New Voting Law

Republicans Spin the Bureau of Labor Statistics on Job Growth

Democrats' Baseless Claim about Domestic Oil Production

* *PLEASE NOTE:* You **won't be able to refer back** to these headlines once you reach the next screen. So make sure to read the headlines carefully and think about **your evaluations about the news source** before you move on to the next screen.

c. Post-treatment Questions

[**Perceived News Credibility**] Based on the headlines you read, how well do you think each of the following describes the news source?

The news source...	Not at all (1)	A little (2)	Moderately (3)	Very (4)	Extremely (5)
is fair (1)					
is accurate (2)					
is unbiased (3)					
tells the whole story (4)					
can be trusted (5)					

Note: The order of items was randomized across respondents.

[Perceived Shared Interest and Expertise] Based on the headlines you read, how well do you think each of the following describes the reporters of the news source?

The reporters of the news source...	Not at all (1)	A little (2)	Moderately (3)	Very (4)	Extremely (5)
are concerned about the public interest (1)					
watch out for your interests (2)					
are well trained (3)					
are experienced (4)					

Note: The order of items was randomized across respondents.

[Perceived Source Bias] Do you think the news source tends to be unbiased or biased when presenting information?

- Not biased (1)
- Biased against Democrats (2)
- Biased against Republicans (3)

Note: The order between (2) and (3) was randomized.

[page break]

[Manipulation Check] Thinking back to the list of headlines you saw, which of the following do you think best describes those headlines?

- Most of the headlines were critical of Republicans (1)
- Most of the headlines were critical of Democrats (2)
- Roughly equal numbers of headlines were critical of Democrats and Republicans (3)
- Most of the headlines were NOT critical of either political party (4)

Note: The order between (1) and (2) was randomized.

6 Preregistration

6.1 Study 1



Coverage Asymmetry and Source Credibility (August 2020) (#45991)

Author(s)

Hwayong Shin (University of Michigan) - hwayong.shin@dartmouth.edu

Pre-registered on: 2020/08/10 - 05:50 AM (PT)

1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

This study examines how the partisan slant or balance in news coverage affects partisans' perceived source credibility.

- 1) The more ingroup-challenging information a source contains, the lower the perceived source credibility will be relative to when the source has a similar amount of ingroup- and outgroup-challenging information (the baseline condition).
- 2a) The more outgroup-challenging information a source contains, the higher the perceived source credibility will be relative to the baseline condition.
- 2b) The degree to which outgroup-challenging slant increases perceived source credibility will be greater than the extent to which ingroup-challenging slant decreases it.
- 3a) The more outgroup-challenging information a source contains, the lower the perceived source credibility will be relative to the baseline condition.
- 3b) The degree to which ingroup-challenging slant decreases perceived source credibility will be greater than the extent to which outgroup-challenging slant decreases it.
- 4) The degree to which ingroup-challenging slant decreases perceived source credibility will be greater among Republicans than among Democrats.

3) Describe the key dependent variable(s) specifying how they will be measured.

The main dependent variable is perceived source credibility, which will be measured by asking participants to indicate the degree to which they think the website [is fair / is accurate / is unbiased / tells the whole story / can be trusted] (1=not at all, 2=a little, 3=moderately, 4=very, 5=extremely).

4) How many and which conditions will participants be assigned to?

Participants will be randomly assigned to four conditions in which they are given a set of news headlines that consists of:

- Condition 1: 3 Republican-challenging, 3 Democrat-challenging, 2 neutral
Condition 2: 5 Republican-challenging, 1 Democrat-challenging, 2 neutral
Condition 3: 1 Republican-challenging, 5 Democrat-challenging, 2 neutral
Condition 4: 3 Republican-referencing, 3 Democrat-referencing, 2 neutral

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

The main analysis will examine the effect of slanted coverage of political parties on perceived source credibility relative to the balanced coverage condition (comparisons of Conditions 1, 2, and 3). The results will be analyzed by using ordinary least squares (OLS) with robust standard errors, with the following model specification: Perceived source credibility = [constant] + rep_chall + dem_chall + pid + rep_chall*pid + dem_chall*pid (rep_chall = 1 if Condition 2, 0 otherwise; dem_chall = 1 if Condition 3, 0 otherwise; pid = 1 if Democrat, 0 if Republican; subjects assigned to Condition 4 will not be included in this analysis). Perceived source credibility will be analyzed using the composite scale of the five items in the source credibility questionnaire.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Participants who do not identify themselves as either a Republican or a Democrat will be excluded.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

The target sample size is 720. The survey platform will use their prescreening data to recruit an equal number of Republicans and Democrats.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

This study will explore whether the perceived credibility of a website tends to increase when the headlines are presented in neutral non-judgmental language, compared to when it is presented in language that criticizes a particular political party (comparing Conditions 1 and 4). It will also explore whether two dimensions of source credibility (perceived shared interest, perceived relative expertise) are similarly or differently affected by the slant and balance of news coverage. Another exploratory question is whether individuals are (1) more likely to choose to read ingroup-challenging news and (2) more likely to conform their factual belief to the given evidence when a website's news coverage is balanced, compared to when it is slanted. In conducting analyses, the results will be verified for robustness using GLM estimators when appropriate (e.g., ordered logit). For exploratory purposes, prior to the experimental stimuli, there will be questionnaires on thermometer ratings (Democrats, Republicans, Trump, Obama), vote intention for the 2020 presidential election, and the perceptions of mass media and fact-checking websites.

Version of AsPredicted Questions: 2.00

Available at <https://aspredicted.org/z8ft-6683.pdf>

Note: The preregistration is available at: <https://aspredicted.org/z8ft-6683.pdf>.

6.2 Study 2



Coverage Asymmetry and Source Credibility (April 2024) (#172863)

Author(s)

Hwayong Shin (Dartmouth College) - hwayong.shin@dartmouth.edu

Pre-registered on: 2024/04/29 - 07:58 AM (PT)

1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

This study examines how asymmetric coverage of political parties affects source credibility perceptions.

- 1) Asymmetric coverage that more often challenges one's own party ("uncongenial asymmetry") will reduce perceived source credibility, compared to symmetric coverage.
- 2) Uncongenial asymmetric coverage will decrease perceived source credibility to a greater extent among Republicans, compared to Democrats.
- 3) Asymmetric coverage that more often challenges the opposite party ("congenial asymmetry") will reduce perceived source credibility, compared to symmetric coverage.

3) Describe the key dependent variable(s) specifying how they will be measured.

Source credibility perceptions will be measured as the composite scale (average) of constituent items as follows: 1) Perceived news credibility: The news source [is fair / is accurate / is unbiased / tells the whole story / can be trusted]; 2) Perceived shared interest: The reporters of the news source [are concerned about the public interest / watch out for your interests]; 3) Perceived expertise: The reporters of the news source [are well trained / are experienced]. Responses will be measured on a five-point scale ("not at all" - "extremely").

4) How many and which conditions will participants be assigned to?

Participants will be randomly assigned to one of three conditions in which they are given a set of news headlines that consists of:

Condition 1: 3 Democrat-challenging, 3 Republican-challenging (baseline)

Condition 2: 1 Democrat-challenging, 5 Republican-challenging

Condition 3: 5 Democrat-challenging, 1 Republican-challenging

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

The main analysis will examine the effects of asymmetric coverage on source credibility perceptions relative to symmetric coverage. The results will be analyzed by using the ordinary least squares (OLS) with robust standard errors, with the following model specification: Outcome = [constant] + congenial + uncongenial + dem + congenial*dem + uncongenial*dem (dem = 1 if Democrat, 0 if Republican; congenial = 1 if [dem=1 & Condition 2] or [dem=0 & Condition 3], 0 otherwise; uncongenial = 1 if [dem=1 & Condition 3] or [dem=0 & Condition 2]).

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Participants who do not identify themselves as either a Republican or a Democrat (e.g., pure independents) will be excluded.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

The target sample size is 1200. Equal numbers of Republicans and Democrats will be recruited using the survey platform's prescreening data. The survey platform (Prolific) will balance the recruitment between male and female.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

This study will examine whether asymmetric coverage reduces trust in the news media and fact-checking, and increases affective polarization and support for government regulation of misinformation. This study will also examine whether emotions toward misinformation (anger, anxiety), confidence in news judgments, and perceived partisan distribution of misinformation amplify or mitigate the extent to which asymmetric coverage influences the outcome variables (e.g., anger and confidence amplify, whereas anxiety mitigates, the extent to which uncongenial asymmetry reduces perceived source credibility (vice versa for congenial asymmetry); the extent to which asymmetric coverage reduces perceived source credibility is greater when the asymmetry is inconsistent with perceived distribution of misinformation). For exploratory purposes, prior to the experimental stimuli, there will be questions about familiarity with and usage of news sources and social media platforms.

Version of ASPredicted Questions: 2.00

Available at <https://aspredicted.org/fmj8-d2n3.pdf>

Note: The preregistration is available at: <https://aspredicted.org/fmj8-d2n3.pdf>.

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