

Populism and susceptibility to misinformation

D.J. Flynn[†]

Nina Wiesehomeier[‡]

16 July 2026

Abstract

Populism and misinformation are among the most extensively studied political phenomena in recent years, yet scholars have failed to examine a potential causal link between individual-level populism and susceptibility to misinformation. Integrating these two literatures, we argue that activating latent populist attitudes can increase directional motivations to endorse misinformation and reject corrections. We test our predictions with experiments that activate latent populism and randomize corrections about 30 false claims across four countries (Spain, Portugal, India, United States). Activating latent populism generates strong emotional reactions; however, contrary to our preregistered hypotheses, activation does not increase belief in misinformation or reduce the effectiveness of corrections. Citizens with strong latent populism are more likely to believe misinformation, but activation does not make misinformation more prevalent or resistant to correction. We argue that these results suggest the need to reconsider the prevailing view of populism as a latent predisposition whose effects depend on external activation.

*We acknowledge funding from Fundación La Caixa (study 1), IE University (study 2), and the Association of Professional Schools of International Affairs (studies 3 and 4). We thank Ethan Busby, Zuheir Desai, Gulizar Hacıyakupoglu, and participants at the Workshop on Disinformation at SciencesPo Paris (2024), International Conference of Europeanists (2024), International Political Science Association (2023), and Western Political Science Association (2024) for helpful comments. Luca Bernasconi, Sho Izumisawa, Ferdinand Pehamberger, and Alfonso Pérez provided excellent research assistance. Any remaining errors and omissions are our own.

[†]Associate Professor of Political Science; School of Politics, Economics, and Global Affairs; IE University. E-mail: dflynn@faculty.ie.edu.

[‡]Associate Professor of Comparative Politics; School of Politics, Economics, and Global Affairs; IE University. E-mail: nwiesehomeier@faculty.ie.edu.

Misinformation can distort democratic debate and complicate policy efforts to address pressing crises from climate change to infectious disease.¹ In many countries, these challenges are exacerbated by politicians who make false or unsupported claims to attract voters. Populist leaders, in particular, often make conspiratorial claims about powerful elites allegedly working in secret to advance their own interests at the expense of “the people” (Törnberg and Chueri 2025; Rivera Magos and González Pureco 2024; Pirro and Taggart 2023; Müller 2022; Hameleers 2021). In the mass public, correlational evidence suggests that citizens with strong populist attitudes are more likely to hold conspiratorial worldviews (Guinjoan and Galais 2023; Papaioannou, Pantazi, and van Prooijen 2023; van Prooijen et al. 2022; Erisen et al. 2021; Castanho Silva, Vegetti, and Littvay 2017a) and to believe misinformation about a range of political and scientific issues (Kosic, Kana Kenfack, and Dionisi 2024; Eberl, Huber, and Greussing 2021; Stecula and Pickup 2021; van Kessel, Sajuria, and Hauwaert 2021; Huber 2020).

These studies are part of a growing body of evidence establishing a correlational relationship between populism and misinformation at both the elite (Törnberg and Chueri 2025) and mass (van Prooijen et al. 2022) levels. Surprisingly, however, existing research has failed to offer theoretical explanation or evidence of a causal connection between populism and misinformation. We integrate research from these two disparate literatures to generate predictions about how individual-level populist attitudes can, when activated, make people more susceptible to misinformation. We argue that activated populist attitudes can serve as directional motivation to endorse misinformation and to reject corrective information — effects we expect to be driven by individuals with high levels of latent populism. We test our theory with preregistered experiments covering 30 fake news stories in four countries, two with low to moderate levels of elite populism (Spain, Portugal) and two with high levels of elite populism (India, United States) at the time of our studies.²

¹Consistent with prior literature, we use the term *misinformation* to refer to factual claims that are not supported by clear evidence or expert opinion, regardless of intent (Jerit and Zhao 2020; Nyhan and Reifler 2010). Misinformation is therefore an umbrella term which encompasses fake news (our focus below), disinformation, conspiracy theories, and related constructs. We use the terms *corrective information*, *corrections*, and *fact checks* interchangeably to refer to any message that seeks to rebut misinformation by providing relevant facts or evidence (Porter and Wood 2024).

²These categorizations reflect political conditions at the time of our data collection. We discuss country selection in greater detail below.

Our experiments combine pre-treatment measures of latent populism with a randomized treatment that activates latent populism via dispositional blame attribution — an approach that resembles how elites seek to activate populist attitudes in campaigns and policy debates and which has been widely validated in previous studies of populist communication (Busby et al. 2025; Busby, Gubler, and Hawkins 2019; Busby et al. 2019; Hameleers, Bos, and De Vreese 2017). After experimentally activating latent populism (or not), we present respondents with a series of true and false news stories covering politics, science, culture, and other issues that were circulating online at the time of data collection. Some of these stories are randomly selected to be accompanied by corrective information. By experimentally manipulating both populist attitudes and exposure to corrections, this approach provides the first causal estimates of the effect of individual-level populism on misinformation belief and persistence.

Before turning to the experimental results, however, we document a robust positive relationship between latent populism and belief in misinformation across topics and countries — a finding consistent with the correlational studies cited above. We then report three key experimental results, which run counter to our preregistered hypotheses. First, we find that activating latent populism does not increase belief in misinformation. Second, we find that respondents are inconsistently responsive to corrections, with pooled estimates in the predicted direction in two countries (although small in magnitude) and null in two countries. Finally, we find no evidence that activating latent populism reduces the effectiveness of corrections. In exploratory analyses, we find that activating latent populism leads to strong emotional reactions, increasing negative emotions and decreasing positive emotions. However, these strong emotional responses do not in turn increase belief in misinformation or reduce the effectiveness of corrections.

These findings offer important insights for our understanding of both populism and misinformation. For populism researchers, they offer fresh evidence into the debate over whether individual-level populism is best understood as a stable disposition or a fluctuating state (Schimpf, Wuttke, and Schoen 2024). Even scholars who conceptualize populist attitudes as a stable disposition argue that these attitudes “*must be activated through context and framing*” (Hawkins,

Kaltwasser, and Andreadis 2020, 7, *italics in original*; also see Ardag et al. 2020; Hawkins and Kaltwasser 2019). However, our results indicate that latent (i.e., non-activated) populist attitudes are associated with beliefs even in the absence of activation. Individuals with weak versus strong latent populist attitudes start with different baseline propensities to believe misinformation; when exposed to our activation treatment, respondents across the populism spectrum show strong emotional responses, but activation does not fundamentally change how they evaluate news stories or respond to corrections. Our findings therefore suggest a potentially more complicated relationship between populism and public opinion than often assumed: populist attitudes may reflect pre-existing factual beliefs about the state of the world, or both populism and factual beliefs may reflect broader feelings of political dissatisfaction or alienation without necessarily being causally related to each other. In either case, we argue that our results underscore the need for more comprehensive theorizing about the relationship between populism and factual beliefs.

For misinformation researchers, our results offer an important addendum to recent studies finding that fact checks consistently decrease belief in misinformation (e.g., Porter, Velez, and Wood 2023; Porter and Wood 2021; Walter et al. 2020; Wood and Porter 2019; Chan et al. 2017). Examining 30 false claims on diverse topics across four countries, we find that corrections significantly decrease belief in one-third of cases, with mostly null effects in other cases. We also observe significant variation across countries: weak, moderate, and strongly populist respondents in one country (Portugal) consistently accept corrections, but effects are inconsistent in other countries (Spain, India, United States). These results suggest that the effectiveness of corrections is more contingent on country- and claim-specific factors than recent research suggests.

In the following sections, we present a theoretical framework to understand the relationship between individual-level populist attitudes and susceptibility to misinformation, derive hypotheses, describe the experimental design and data, and present the descriptive and experimental results. We conclude with a discussion of implications for future research and normative issues surrounding factual beliefs in an era of rising populism.

Populist attitudes, activation, and susceptibility to misinformation

The study of populist attitudes — or populist predispositions — draws from the ideational approach, which conceives of populism as the intersection of three distinct sets of beliefs: anti-elitism, people-centrism, and a moralized Manichean worldview (cf. Mudde and Rovira Kaltwasser 2017). Together, these beliefs inform the opinions that individuals hold about the political world and its actors (Hawkins 2009; Hawkins, Riding, and Mudde 2012; Akkerman, Mudde, and Zaslove 2014). Within this framework, populist attitudes are typically assumed to form a relatively stable set of attitudes, and empirical evidence points in that direction (Ardag et al. 2020). Nevertheless, populist attitudes do not operate at the same level as consciously held opinions towards candidates or issues.³ Rather, the prevailing view is that populist attitudes are a latent predisposition that require activation by contextual, linguistic, or emotional cues (Ardag et al. 2020; Hawkins, Kaltwasser, and Andreadis 2020; Hawkins and Kaltwasser 2019).

Once activated, populist attitudes can create a powerful motivation for action and, in turn, shape beliefs and behavior. For instance, experimental research indicates that exposure to populist frames in news articles can increase feelings of resentment and support for populist parties (cf., Kittel 2025; Bos, van der Brug, and de Vreese 2013). Similarly, Hameleers, Bos, and de Vreese (2018) demonstrate that populist frames blaming elites for national problems reduce support for incumbents and increase support for populist challengers. Bos et al. (2020) conduct experiments in 15 European countries and find that populist frames increase perceptions of economic insecurity and stimulate soft forms of participation, such as interest in discussing policy problems or signing a petition. Conversely, when populism is not activated on the supply side (e.g., by politicians), populist attitudes may have little or no electoral effect (Hawkins, Kaltwasser, and Andreadis 2020; Medeiros 2021; Santana-Pereira and Cancela 2020).

While many studies examine the effect of populist frames, other work demonstrates that individual-

³It should be pointed out that some scholars assume that populist attitudes are more fluid, a discussion that only recently has been addressed empirically (Schimpf, Wuttke, and Schoen 2024).

level populism can be activated by manipulating the manner in which people attribute blame for political or social problems (e.g., Busby et al. 2025; Busby, Gubler, and Hawkins 2019; Hameleers, Bos, and De Vreese 2017). When considering a policy problem, voters can attribute blame *situationally* or *dispositionally*. Situational blame attribution involves focusing on the events or circumstances that gave rise to a problem (e.g., blaming unemployment on global economic trends). By contrast, dispositional blame attribution entails placing responsibility in the hands of groups or individuals who are morally or ethically flawed (e.g., blaming unemployment on corrupt actions by policymakers). This dispositional approach closely resembles populist rhetoric, which often blames problems on the actions of corrupt or immoral elites who pursue their own interests at the expense of the general public.

Past research indicates that these two forms of blame attribution — dispositional and situational — have strikingly different effects. In particular, dispositional blame attribution has been shown to activate populist ways of thinking and increase support for populist candidates. In a large, four-country study, Busby et al. (2025) show that encouraging dispositional blame attribution increases expressions of populist sentiment (also see Busby, Gubler, and Hawkins 2019, study 1). Busby, Gubler, and Hawkins (2019, study 2) find that dispositional blame attribution increases support for populist candidates. By contrast, situational blame attribution has no such effects. Respondents who are encouraged to attribute blame situationally behave similarly to pure control respondents who received no blame attribution treatment at all (Busby, Gubler, and Hawkins 2019, 624–627).⁴

While dispositional blame attribution has been shown to activate populist thinking and increase support for populist candidates (Busby, Gubler, and Hawkins 2019), the extent to which this process affects misinformation belief remains an open question. Past research has consistently demonstrated that individual-level populism is correlated with conspiratorial worldviews (Guinjoan and Galais 2023; Papaioannou, Pantazi, and van Prooijen 2023; van Prooijen et al. 2022; Erisen et al. 2021; Castanho Silva, Vegetti, and Littvay 2017b) and misperceptions about various political and scientific issues (Kosic, Kana Kenfack, and Dionisi 2024; Eberl, Huber, and Greussing 2021; Stec-

⁴In the experiments reported below, we take the same approach, comparing respondents who had their latent populism activated via a dispositional blame attribution task to respondents who did not.

ula and Pickup 2021; van Kessel, Sajuria, and Hauwaert 2021; Huber 2020). Individuals with differing levels of latent populism, then, start with different baseline propensities to believe misinformation, especially misinformation that is presented in explicitly populist terms. The question then becomes whether these groups are similarly or differentially responsive to stimuli that activate latent populism. Surprisingly, no existing study examines the causal effect of latent populism activation on belief in misinformation — and whether this potential effect varies across individuals with differing levels of latent populism.

Existing literature offers conflicting insights. Some past research finds that the effects of populism activation (on outcomes besides misinformation belief) are limited to individuals with low to moderate levels of latent populism. For instance, Busby, Gubler, and Hawkins (2019, 619) argue, based on framing theory, that the effects of dispositional blame attribution should be limited to respondents with low levels of latent populism. They contend that individuals with high levels of latent populism are likely to adopt populist ways of thinking even in the absence of activation; by contrast, individuals with low levels of latent populism are not inclined to view the world in populism terms, but can be convinced to do so when presented with relevant frames or cues. They find support for this expectation in their two experiments, where the effects of populism activation are concentrated among respondents with low pre-treatment populist attitudes.

However, other research on populism — and the broader literature on opinion formation — suggest a contradictory possibility. For instance, Zaller’s (1992) model suggests that opinions are affected by considerations that are received and accepted, where acceptance is based in part on consistency with pre-existing considerations (cf., Lodge and Taber 2013; Kunda 1990). This logic suggests that a stimulus intended to activate latent populism (e.g., dispositional blame attribution) would not resonate with individuals who are not inclined to see the world through a populist lens — and therefore not affect related beliefs. Instead, activation should be most consequential for respondents with high levels of latent populism because the stimulus is consistent with their pre-dispositions. And indeed, some existing research suggests that populist frames have larger effects among respondents with high levels of political cynicism (Bos, van der Brug, and de Vreese 2013)

or extreme ideological positions (Hameleers et al. 2021). We expect to observe a similar dynamic when it comes to latent populism activation and belief in populist fake news. (As we will explain below, we consider the effect of latent populism activation on non-populist fake news as well.) Specifically, we predict that:

H1: Among people with populist predispositions, activating populism will increase belief in populist fake news.⁵

The same line of reasoning can help generate predictions about how people will respond to corrective information. In recent years, a large literature has developed examining the psychology of misinformation and best practices for correcting misperceptions (see Ecker et al. 2022; Jerit and Zhao 2020). In an influential early article, Nyhan and Reifler (2010) found that corrections sometimes fail to reduce misperceptions — and may backfire among strongly directionally motivated respondents on some issues. More recent research, however, suggests that the “backfire effect” is exceedingly rare; to the contrary, corrections are effective at reducing misperceptions among most audiences on most issues (Blair et al. 2024; Porter and Wood 2024; Nyhan 2021; Haglin 2017). Several experimental studies have demonstrated the effectiveness of corrections across policy issues and countries. For instance, Wood and Porter (2019) conduct fact-checking experiments on 52 issues and find no instances of backfire; instead, “when presented with factual information...the average subject accedes to the correction and distances himself from the inaccurate claim” (160). Similarly, Porter and Wood (2021) conduct 28 experiments in four countries covering politics, economics, crime, and Covid–19, concluding that fact checks consistently reduce misperceptions (also see Porter, Velez, and Wood 2023). These findings are consistent with recent meta-analyses, which have concluded that fact checks are effective at reducing misperceptions (Chan et al. 2017; Walter et al. 2020). In the experiments below, we examine the effectiveness of corrections in the context of viral fake news, which often has broadly populist and anti-institutional overtones and may therefore be more resistant to correction. Nonetheless, given existing evidence, we expect that:

⁵This hypothesis was numbered H2 in our preregistrations.

H2: Fact checks will reduce belief in fake news claims.⁶

While we expect corrections to be generally effective, past research makes clear that the magnitude of correction effects can vary across individuals with different prior beliefs and predispositions. We focus in particular on how individuals with varying levels of populist predispositions respond to corrections about populist fake news. Specifically, we expect individuals with high levels of latent populism who undergo activation will be strongly motivated to believe populist fake news and, correspondingly, motivated to resist corrective information.⁷ While previous research has not examined the potential for populism to serve as a directional motivation in this fashion, other work suggests that the effectiveness of corrections can vary across individuals with different prior beliefs (Nyhan, Reifler, and Ubel 2013) and ideologies (Walter et al. 2020). More broadly, research on social identities has found that priming message-relevant identities can affect the persuasiveness of subsequent information. For instance, Druckman, Peterson, and Slothuus (2013) find that priming partisan identity (via a prompt that accentuates elite partisan polarization) alters the manner in which people process political arguments. Specifically, they find that when partisan polarization is accentuated, people tend to follow arguments from their preferred party regardless of the direction or strength of those arguments (also see Slothuus and de Vreese 2010).

In the context of populist fake news, we expect that strong, activated populist attitudes will serve as an especially strong directional motivation because it is so proximate to the message (i.e., populist fake news) and counter-message (i.e., correction) at hand. Specifically, we expect that:

H3: Among people with populist predispositions, activating populism will reduce the effectiveness of fact checks about populist fake news.

⁶This hypothesis was numbered H1 in our preregistrations.

⁷For a similar argument, see Dennison and Turnbull-Dugarte (N.d.).

Experimental design and data

We test these hypotheses with preregistered survey experiments in four countries: Spain ($N = 8,789$), Portugal ($N = 4,962$), India ($N = 3,003$), and the United States ($N = 3,203$).⁸ We selected these four countries because they offered substantial variation on both elite and mass populism — the most theoretically relevant variable in our analyses (Druckman and Kam 2011).

On the elite side, the salience and electoral success of populist parties varied significantly across these four countries. At the time of our experiments, Spain was (and continues to be) governed by mainstream center-left party PSOE; however, the country was experiencing a nascent surge in elite populism on both the left and right, with left-wing populists Podemos (We Can) in 2015 followed by right-wing populists Vox in 2019. Despite sharing many cultural and socioeconomic characteristics with Spain, elite populism was largely absent in Portugal (Santana-Pereira and Cancela 2020).⁹ By contrast, during this period, politics in India and the United States were dominated by populists Narendra Modi and Donald Trump, respectively. While both are right-wing populists, Modi came to power on an agenda of religious (Hindu) nationalism while Trump more closely resembles many western European leaders elected in recent years on anti-immigration nationalistic platforms.

On the mass side, populism is also present in all four countries to varying degrees. This is reflected in levels of pre-treatment populism measured in the surveys analyzed below. Specifically, populist sentiment is lowest in Portugal (mean = 2.84 out of 5), slightly higher in the United States (3.00) and Spain (3.03), and significantly higher in India (3.46). The distribution of populism is roughly normal in Spain, Portugal, and the United States, and strongly right-skewed in India, suggesting higher levels of latent populism in that country.¹⁰ These differences allow us to examine the extent to which our treatments (populism activation and corrections) have different effects

⁸We filed two preregistrations. The first was filed in February 2021 and covered the Spain and Portugal studies. After we secured additional funding, we filed a second preregistration in December 2021, which covered the India and US studies. An anonymized version of both preregistrations is included in Appendix D. Following the preregistrations, we recruited the maximum number of respondents possible given the study budget in all four studies.

⁹Right-wing populist party Chega has gained representation in recent years, but was not a salient national force at the time our data were collected.

¹⁰All pairwise comparisons are significant at $p < .001$ using both t-tests and nonparametric Kolmogorov-Smirnov tests.

across countries where populism is differentially salient.

Respondents in Spain and Portugal were recruited from a commercial panel (Netquest) and resembled the national population in terms of age, education, gender, and region. Respondents in India and the United States were recruited from Amazon’s Mechanical Turk (MTurk; Berinsky, Huber, and Lenz 2012). While MTurk samples are descriptively different from national populations, treatment effect estimates have been shown to generalize from MTurk to representative samples (Coppock 2019; Coppock, Leeper, and Mullinix 2018; Krupnikov, Nam, and Style 2021; Mullinix, Druckman, and Freese 2015), including recent studies of fake news discernment (Pennycook and Rand 2022).¹¹

The design of all four survey experiments is similar. Respondents began the survey by answering a series of demographic and background questions. Our critical pre-treatment characteristic is populist attitudes, which we measure using the standard six-item battery developed by Akkerman, Mudde, and Zaslove (2014). These questions ask respondents to agree or disagree with a series of six statements designed to capture the three subdimensions of populism: people-centrism, Manicheanism, and anti-elitism.¹² Following Wuttke, Schimpf, and Schoen (2020), we use responses to these six items to calculate an overall populism score for each respondent.¹³ We use this overall score to divide our samples into terciles of pre-treatment (i.e., latent) populism. We refer to respondents in these terciles as *weak*, *moderate*, and *strong* populists, respectively. Here, we note a deviation from our preregistration, which indicates that we would restrict certain experimental analyses to respondents in the top tercile of populist sentiment.¹⁴ Instead, we present all results on the full sample of respondents, which we break down into terciles. This approach

¹¹More generally, the suitability of convenience samples depends on the existence of sufficient variance on theoretically relevant moderators (Druckman and Kam 2011). In our case, the most relevant moderator is latent populism, and we have substantial variation on this variable in all countries. Space limits prevent us from presenting an exhaustive analysis of the distribution of pre-treatment populism in all countries; however, this information is available on request.

¹²Prior work indicates that measuring moderators pre-treatment does not bias effect estimates (Clifford, Sheagley, and Piston 2021; Sheagley and Clifford 2023).

¹³Specifically, we calculate the arithmetic mean of the anti-elitism and people-centrism subscales. The resulting subscale scores, together with the third subscale, are then combined using a geometric mean to construct the overall populism score.

¹⁴This restriction concerns H1 and H3 in the analyses below.

allows us to better contextualize the results from our preregistered subsample of strong populists. As will become clear shortly, weak, moderate, and strong populists have different baseline levels of belief in fake news. Presenting treatment effects only among strong populists would therefore offer a potentially misleading picture of treatment effects, which are estimated relative to an extreme baseline. (Of course, readers who prefer to consider only preregistered results can focus exclusively on the results among strong populists, which are presented below.)

After answering the populism battery, respondents were randomly assigned to two separate experimental treatments. The first is a latent populism activation task (treatment group) or no task (control group). The populism activation treatment consists of a three-item sequence that encourages dispositional blame attribution for a national problem. Treated respondents were first asked to rank a list of national problems in order of importance (respondents could also choose to specify another problem not listed). On the next screen, respondents were asked to explain in a few words which groups or individuals were most responsible for the problem they ranked as the most important, why these particular groups or individuals are responsible, and how they should be handled. As discussed above, past research has validated this approach to activate latent populism, which consistently increases expression of populist sentiment (Busby et al. 2025; Busby, Gubler, and Hawkins 2019, study 1; Hameleers, Bos, and de Vreese 2018) and support for populist candidates (Busby et al. 2019, study 2).

In the next section of the survey, respondents were presented with a series of short articles (which we call news blurbs) about politics, science, education, religion, and other topics. The first news blurb shown to all respondents was a true story discussing recent increases in extreme weather events linked to climate change.¹⁵ Respondents were then presented with a series of randomly selected and ordered news blurbs that described recent false claims specific to the country context (see Appendix B for more information). For instance, in the Spanish experiment, all respondents first read the climate change blurb, and then were randomly assigned to read one blurb covering science (about genetically modified foods or vaccines), education (replacing language

¹⁵Placing the true story first in the sequence creates a few seconds of separation between the populism activation treatment and the first fake news blurb. The topic and order of subsequent blurbs was randomized.

classes with religion or mandatory Islamic studies), political parties (about pacts by left- or right-wing coalitions in regional governments), and alleged conspiracies (by patent holders or NATO). In our preregistrations, we distinguish between fake news blurbs that are overtly populist (e.g., about conspiring politicians in Spain or corrupt Members of Parliament in India) and those that are not (e.g., about the safety of GMOs or vaccines). For ease of presentation, we report pooled models in the main text and separate claim-specific models (which distinguish between populist and non-populist stories) in Appendix C. Our results do not change depending on whether we consider all claims or the subset of populist claims.

Our second experimental treatment — corrective information — was randomized at the blurb level. We created multiple versions of each news blurb: one version that included only a headline and short description of the false claim (control group), and other versions that included a short piece of corrective information (treatment group). To maximize realism, we created multiple versions of each correction varying only the source (e.g., fact checkers, scientists, economists).¹⁶ After reading each news blurb, respondents were asked to rate the accuracy of the central factual claim on a four-point scale ranging from “not at all accurate” to “very accurate.” This item serves as our primary dependent variable in the analyses below. This approach is consistent with past research into factual beliefs (Nyhan and Reifler 2010) and the perceived accuracy of fake news stories (Guess et al. 2020; Porter and Wood 2021).¹⁷

To summarize, the experimental design used in all four studies randomizes populism activation and exposure to corrective information about a range of fake news stories. Our outcome variable is belief in the central factual claim in each fake news blurb.

¹⁶Following our preregistration, we maximize power by collapsing all respondents who saw corrections from any source into a single treatment group.

¹⁷Given our studies’ focus on misinformation, we took several steps to minimize potential harms and comply with disciplinary ethical guidelines (American Political Science Association 2020). First, to avoid the possibility of popularizing low salience claims, we selected claims that were at least moderately salient and already in circulation in the respective countries at the time of our experiments. Second, we fully debriefed all respondents at the conclusion of the study by presenting a list of all claims and explaining which were true and false. Finally, we supplemented this standard debriefing in Studies 3 and 4, which were conducted after the outbreak of Covid-19, with a statement about the safety and efficacy of vaccines and links to national and international health authorities. Our research protocols were reviewed and approved by the IRB at [REDACTED] before data collection began.

Results

Descriptive results

Before turning to the experimental results, we conduct a descriptive analysis of the relationship between latent populism and belief in misinformation (across all fake news stories in all four countries). As discussed, previous research has established that populism is associated with conspiratorial worldviews and belief in misinformation about several topics, notably vaccines (Kennedy 2019) and Covid-19 (Stecula and Pickup 2021). However, our data permit a more comprehensive test of this relationship across a wider and more diverse set of stories in multiple countries. This analysis also serves as an important first step before considering the causal effect of our populism activation treatment, since our argument above was premised on the idea that individuals with differing levels of latent populism start with differing baseline propensities to believe misinformation.

In this analysis, we divide the samples into terciles of pre-treatment populism, which we refer to as weak, moderate, and strong populists. In each country, we estimated a preregistered OLS model predicting average belief in misinformation based on populism tercile, with additional controls for conspiratorial thinking, institutional trust, political knowledge, and demographics.¹⁸ Because we are interested in the relationship between latent populism and baseline belief in misinformation, we restrict this analysis to pure control respondents — that is, respondents who did not receive a populism activation treatment and were presented with an uncorrected version of a particular fake news story. The pooled results are presented in Table 1.

¹⁸These models were preregistered as RQ1.

Table 1: Latent populism and belief in misinformation (OLS models)

	<i>DV = belief in false claim (pooled)</i>			
	Study 1 (Spain)	Study 2 (Portugal)	Study 3 (India)	Study 4 (USA)
Moderate populist (tercile 2)	0.07* (0.03)	0.05 (0.05)	−0.10* (0.04)	0.39*** (0.04)
Strong populist (tercile 3)	0.18*** (0.03)	0.12 (0.06)	0.12** (0.04)	0.53*** (0.05)
Constant	2.11*** (0.06)	2.26*** (0.29)	2.94*** (0.05)	2.05*** (0.06)
Strong populist – moderate populist	0.11***	0.07	0.22***	0.14***
Demographics	✓	✓	✓	✓
Conspiratorial thinking	✓	✓	✓	✓
Institutional trust	✓	✓	✓	✓
Get news from social media	✓	✓	✓	✓
Left/right ideology	✓	✓		✓
Political knowledge	✓	✓		✓
N (respondent-blurbs)	5,633	1,463	3,281	3,366

Note: Cell entries are OLS coefficients with clustered standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Demographics include age, sex, and education. Political knowledge and left/right ideology were not measured in Study 3 (India). Samples includes pure control condition for each blurb (no populism activation, no correction). Full results in Appendix Table A3. Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

The results demonstrate that latent populism is positively associated with belief in misinformation in three countries — Spain, India, and the United States — with estimates in the expected direction but insignificant in Portugal. While the results are somewhat mixed for moderate populists, holding strong populist predispositions is associated with greater belief in false claims in Spain, India, and the United States. Moreover, in these three countries, the coefficient on strong populists is significantly larger than the coefficient on moderate populists ($p < .001$ in all three models).

To further contextualize our results, we estimated separate claim-specific models in each coun-

try (see Appendix C). Our goal was to understand whether the aggregate results in Table 1 are driven by a particular type of fake news stories. Results indicate that the relationship between strong populist attitudes and belief in misinformation is consistent across claims in Spain (6 out of 8 claims) and the United States (8 out of 8 claims). India presents an interesting test because of its strongly right-skewed distribution of latent populism. In this setting, strong populists are less distinct from weak and moderate populists than in countries (like Spain, Portugal, and the United States) where the distribution of populist attitudes is more normal. Nonetheless, in India, the relationship between strong latent populism and belief in misinformation is in the expected direction in all 9 models, but only significant in 1 model. Portugal stands out as the one country in which latent populism is not associated with belief in misinformation. In the claim-specific models, this relationship is significant in only 1 out of 5 claims.¹⁹

Overall, these results suggest that latent populism is strongly associated with belief in misinformation in three countries (Spain, India, United States). This relationship does not appear in the one country (Portugal) which lacked salient populist politics at the time of our data collection.

Experimental results

Our experimental analyses examine the causal effect of activating latent populism on belief in misinformation and the effectiveness of corrections. We begin our experimental analyses with H1, which predicts that the activation treatment will increase belief in fake news among strong populists. We test H1 with OLS models that regress misinformation belief on a dummy variable for the populism activation treatment, pre-treatment populism tercile, and the interaction of these two terms. For all experimental analyses, we present pooled results in the main text (reflecting the effect of our treatments on average belief across all misinformation claims); separate claim-specific models are presented in Appendix C.

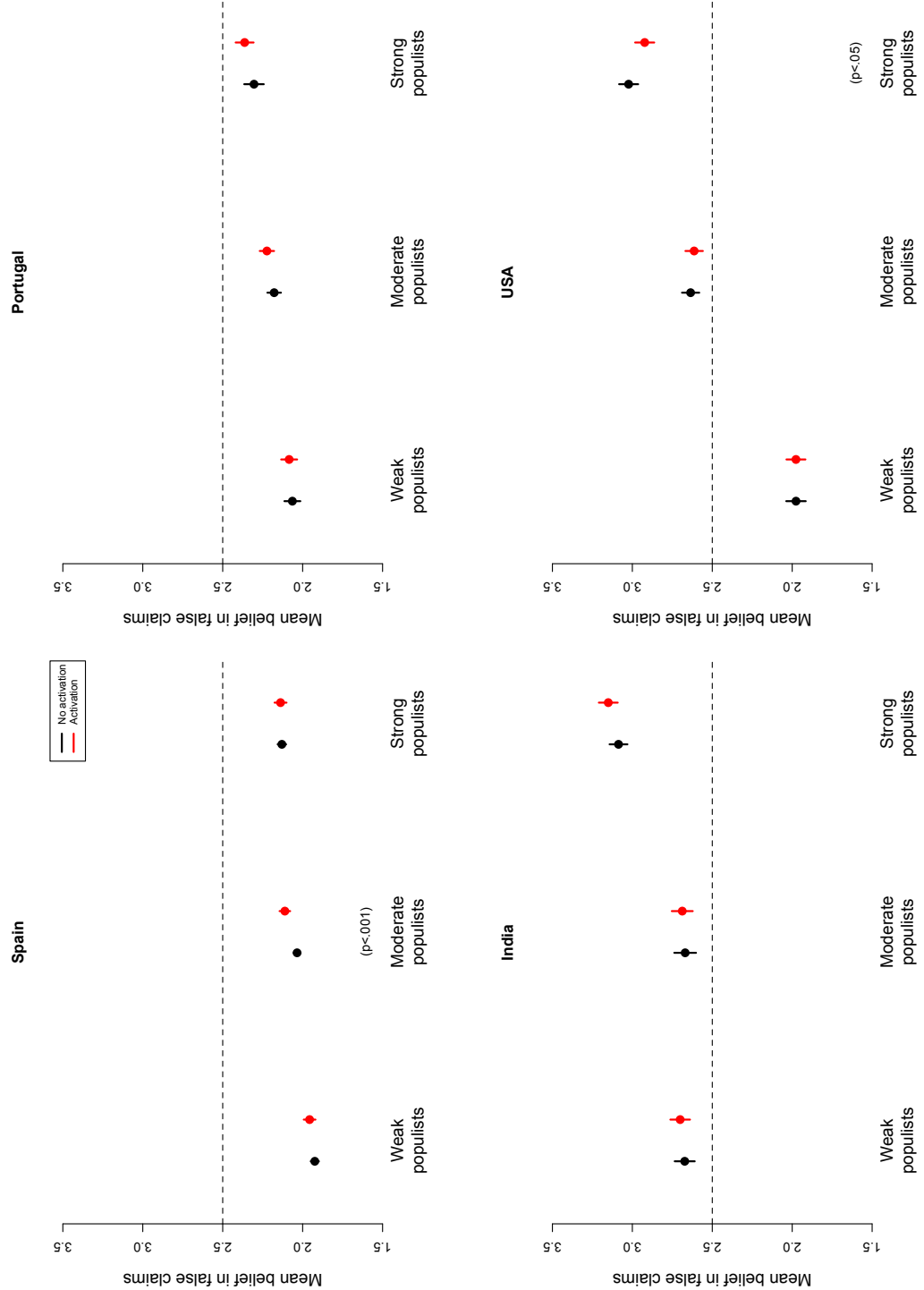
Figure 1 illustrates the effect of populism activation on overall belief in false claims within each tercile for all countries. Specifically, the figure depicts mean levels of belief among respondents

¹⁹The claim involves an alleged conspiracy by the holders of medical patents.

assigned to the populism activation treatment (red dots) or not (black dots) along with 95 percent confidence intervals. The black dots therefore represent baseline (non-activated) misinformation belief in each tercile. An initial look at the figure reveals that, consistent with the descriptive results presented above, belief in misinformation increases significantly with increases in latent populism (i.e., moving from left to right in each panel of the figure). Consistent with our argument above, individuals with different levels of latent populism start with different baseline propensities to believe misinformation.

The key test of H1, however, is whether activation increases belief in misinformation among respondents with high levels of latent populism. Contrary to H1, we fail to find any evidence that activation increase misinformation belief among strong populists: the effect is null in three countries (Spain, Portugal, India) and incorrectly signed, but only marginally significant, in the fourth country (USA). Looking beyond strong populists, we similarly find that activation fails to increase belief in misinformation. Weak populists are unaffected by activation in all four countries. Among moderate populists, activating latent populism increases belief in misinformation in one country (Spain, $p < .001$) and has no effect in three countries (Portugal, India, United States).

Figure 1: Effect of activating latent populism on belief in misinformation



Note: Point estimates display mean belief in misinformation among respondents exposed to populism activation treatment (red) or not exposed (black). Means calculated from models in Appendix Table A1.1. Belief is measured 1–4, where higher values indicate more belief. Error bars contain 95% confidence intervals. Dotted line shows the scale midpoint.

Results from the claim-specific models reinforce these null effects (see Appendix Tables A12–15). Across four countries and 30 false claims, activating latent populism consistently fails to increase belief in misinformation. We also find scant evidence that the effect of activation is heterogeneous across claims (populist or non-populist) or respondents with different levels of pre-treatment populism. (As explained above, we preregistered a subset of misinformation claims in each country that were more explicitly populist, where we expected to observe the predicted effects. These populist claims are marked with an asterisk in the Appendix tables referenced here.) Across all four countries, the activation treatment consistently fails to increase belief in both populist- and non-populist misinformation claims. We find only two instances — both in Spain — in which the effect of activation on belief in misinformation is significantly larger for respondents with moderate compared to weak levels of pre-treatment populism (see Appendix Table A12). And neither of these claims, both of which concern education, are overtly populist. Overall, these results suggest that although latent populism is associated with belief in misinformation, activating this latent populism does not increase belief in misinformation. H1 is not supported.

Our next two hypotheses focus on corrections. H2 predicts that corrections will reduce belief in misinformation. We test this hypothesis by examining the overall effectiveness of corrections, considering all respondents and all misinformation claims in each country. Table 2 presents the results of pooled models, which include respondent fixed effects and clustered standard errors. The dependent variable is again average belief in misinformation across all presented claims; negative estimates therefore correspond to successful corrections.

As shown in Table 2, the effectiveness of corrections is inconsistent across countries. The pooled estimate is negative in two countries (Portugal $p < .001$, USA $p < .05$) and null in two countries (Spain, India). Claim-specific models suggest that these pooled estimates are masking substantial heterogeneity in the effectiveness of corrections across issues (see Appendix Tables A16–19). For instance, corrections significantly reduce belief in 3 out of 8 false claims in Spain, 4 out of 5 claims in Portugal, 1 out of 9 claims in India, and 2 out of 8 claims in the United States.

To further explore these country differences, we turn to the two misinformation claims that were

Table 2: Effect of corrections on belief in misinformation

	<i>DV = belief in false claims (pooled)</i>			
	Study 1 (Spain)	Study 2 (Portugal)	Study 3 (India)	Study 4 (USA)
Correction	−0.02 (0.01)	−0.13*** (0.02)	−0.004 (0.01)	−0.03* (0.01)
Constant	3.22*** (0.02)	2.21*** (0.03)	2.80*** (0.02)	2.99*** (0.03)
Respondent fixed effects	✓	✓	✓	✓
# news blurbs per respondent	4	3	5	5
# respondents	8,789	4,962	3,003	3,203
N (respondent-blurbs)	34,700	9,358	14,053	15,073

Note: Cell entries are OLS coefficients with clustered standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. Models include all false claims from all studies. Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

included in all four studies: the alleged unsafety of childhood vaccines and an alleged conspiracy by the holders of medical patents. Focusing first on vaccines, we find that corrections have null effects in three countries (Portugal, India, United States) and backfire in Spain (though the effect is only marginally significant, $p < .05$). Turning to the patent holders conspiracy, we find that corrections reduce misperceptions in two countries (Portugal $p < .001$, USA $p < .05$), have null effects in one country (India), and backfire in one country (Spain $p < .05$).

These analyses offer only partial support for H2 (in Portugal and the United States). More importantly, they suggest that the effectiveness of corrections varies significantly across claims and countries. This finding runs counter to some research work, discussed above, which finds that corrections are generally effective across claims and countries. We consider potential reasons for this disparity in the conclusion.

Our final hypothesis concerns the potential moderating effect of latent populism activation on the effectiveness of corrections. Specifically, H3 predicts that activating latent populism will reduce the effectiveness of corrections among strongly populist respondents. We test this hypothesis

with models that interact exposure to a correction with pre-treatment populism, estimated separately for respondents who were assigned to the activation treatment or not.²⁰ We present the results graphically in Figure 2. The figure depicts the effect of a correction on belief in false claims within each tercile. We further distinguish between respondents who received the latent populism activation treatment (right panel) or not (left panel). If H3 is supported, we would expect to observe significantly larger (and negatively signed) correction effects among respondents in the left panels compared to the right.

However, Figure 2 reveals no evidence that the effectiveness of corrections is diminished when latent populism is activated. Instead, in each country, we observe a similar pattern of results under both populism activation (right panels) and no activation (left panels). The effectiveness of corrections appears to depend on country context much more than populism activation. Consider the Portuguese results in panel (b). Here, we see that corrections consistently reduce misperceptions — both when populism is activated or not activated. In fact, in Portugal, corrections significantly reduce misperceptions across the board: among weak ($p < .001$), moderate ($p < .001$), and strong populists ($p < .01$) who were not activated, and among weak ($p < .001$), moderate ($p < .001$), and strong populists ($p < .01$) who were activated. Furthermore, there is no evidence that the magnitude of these correction effects is diminished when latent populism is activated.

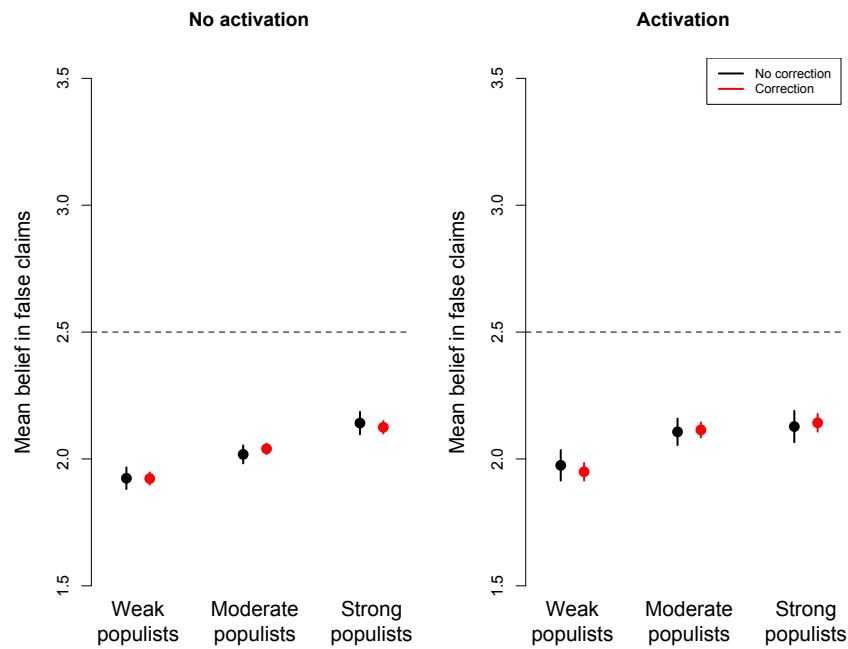
The Portuguese results offer a stark contrast to the other countries — Spain, India, and the United States — where the effect of corrections on overall belief in false claims is null across all terciles.²¹ In these three countries, corrections fail to reduce misperceptions even in the no activation groups (left panels). Correspondingly, we find no evidence to support our prediction that activating latent populism reduces the effectiveness of corrections in these countries. H3 is not supported.

²⁰Our preregistered test of H3 mistakenly omits a necessary interaction between these variables and the populism activation treatment. Here, the question of interest is whether the effect of a correction on belief varies across activated and non-activated respondents — a difference-in-differences. Our pooled models, where the unit of analysis is respondent-blurbs, are well powered to detect these difference-in-differences (see Appendix Tables A20–23).

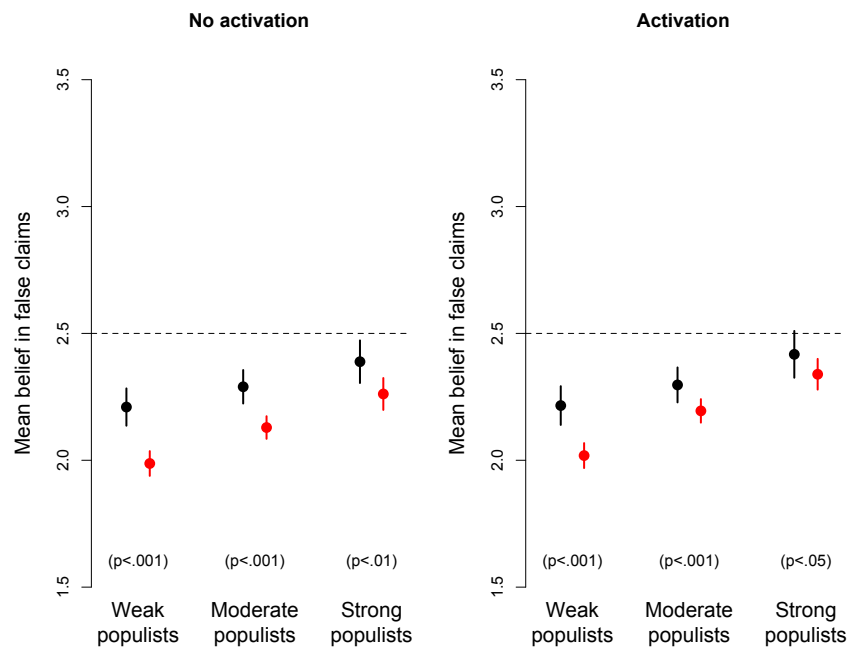
²¹Recall from our discussion of the H2 results that the pooled correction estimate is negative and significant in the United States. When splitting the sample for purposes of testing H3, these pooled effects are no longer significant.

Figure 2: Effect of corrections on belief in misinformation: populism activation (treatment) vs. no activation (control) groups

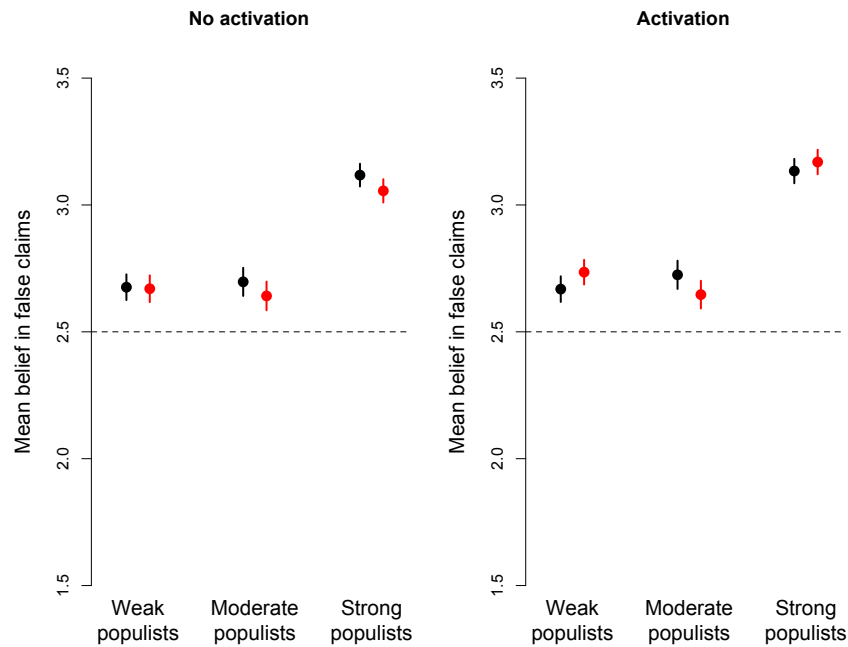
(a) Spain



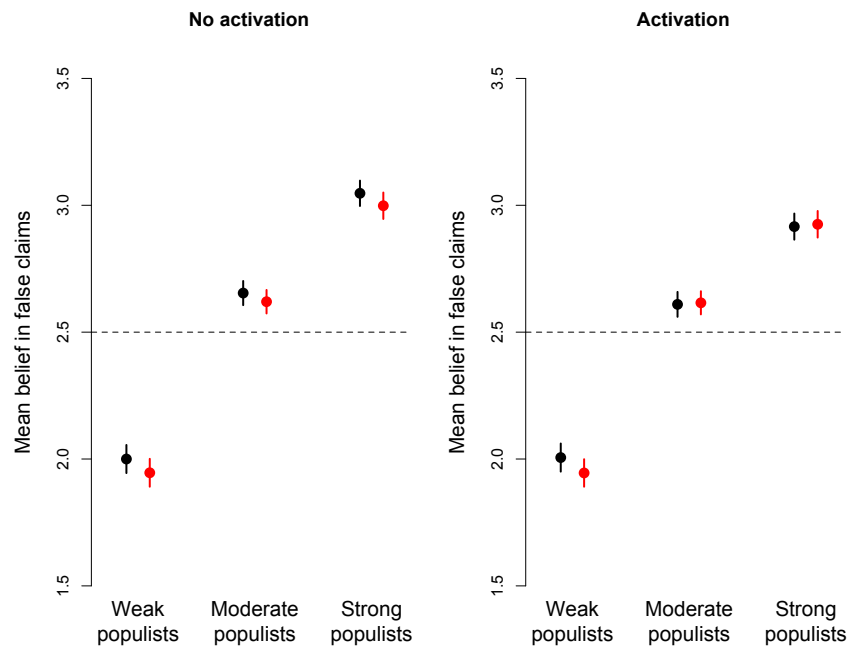
(b) Portugal



(c) India



(d) USA



Note: Point estimates show mean belief in false claims among respondents exposed to a correction (red) or not (black). Means calculated from models in Appendix Tables A20–A23. Left panels show populism activation (treatment) group; right panels show no activation (control) group. Belief is measured 1–4 (higher values indicate more belief). Error bars contain 95% confidence intervals. Dotted line shows the scale midpoint.

Manipulation check: activating latent populism causes strong emotional responses

Since latent populism is consistently correlated with misinformation, why does activating this latent populism fail to make misinformation belief stronger or more resistant to correction? One potential explanation is that our activation treatment, which relies on a writing task that encourages dispositional blame attribution, failed. Such failure would be inconsistent with past research, which has consistently found that this treatment increases expression of populist sentiment and support for populist candidates (Busby et al. 2025; Busby, Gubler, and Hawkins 2019; Hameleers, Bos, and De Vreese 2017). Nonetheless, we verified the success of our treatment by examining its effects on an outcome that is arguably more theoretically proximate than factual beliefs: emotions.

Past research has demonstrated that populist messages or cues lead to strong emotional reactions, and that emotions may be a key mechanism through which populism affects broader attitudes (e.g., Demasi, McCoy, and Littvay 2024; Jost, Maurer, and Hassler 2020; Marcus 2021; Rico 2024; Sandberg, Jacobs, and Spierings 2022; Seawright 2012). In our experiments, we would therefore expect our treatment, if successful, to cause strong emotional reactions. More precisely, we would expect the treatment to increase negative emotions (e.g., anger, disgust) and reduce positive emotions (e.g., happiness, hope). To test these expectations, we take advantage of a battery of questions that were asked of all respondents immediately before they evaluated the fake news stories analyzed above (i.e., immediately post-treatment for respondents assigned to the activation treatment). These questions asked respondents to self-report the extent to which they felt various negative and positive emotions. Negative emotions included anger, disgust, fear/dread, and sadness, and positive emotions included enthusiasm, happiness, hope, and interest. For simplicity, we collapse negative and positive emotions into separate indices and examine how our activation treatment affects each index.²²

Figure 3 presents the effects of our treatments on emotions. Specifically, the figure depicts mean levels of negative emotions (left panels) and positive emotions (right panels) among respon-

²²Our analysis of negative emotions was preregistered (RQ5). Our analysis of positive emotions is exploratory.

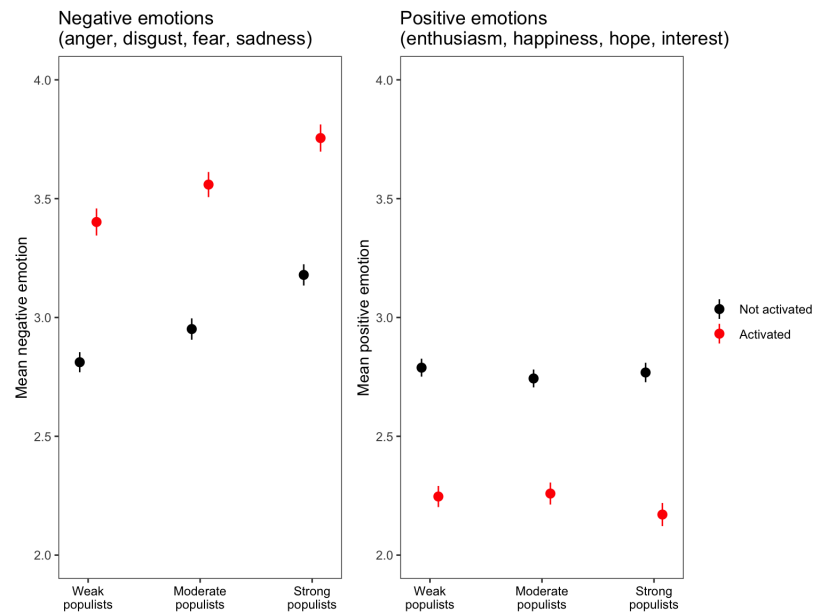
dents who received the activation treatment (red dots) or not (black dots). The lines contain 95 percent confidence intervals. Like the previous figures, we again break the samples down into terciles of pre-treatment populism on the horizontal axis.

Results demonstrate that our activation treatment led to strong emotional reactions (in the expected directions) in nearly all cases. In three countries — Spain, Portugal, and the United States — the treatment increased negative emotions and decreased positive emotions among respondents in all three terciles ($p < .001$ for all). This suggests that our treatments were successfully received and incorporated into respondents' emotional states in these three countries.

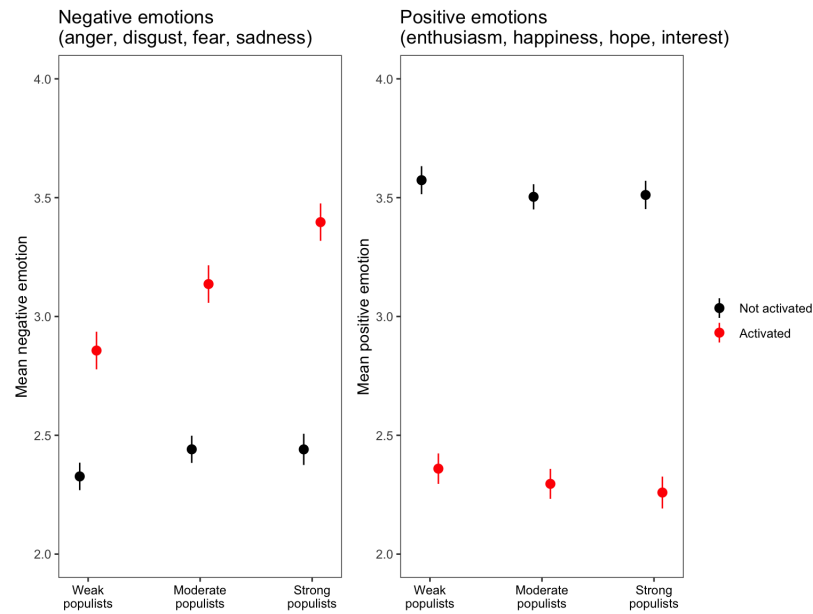
India presents an interesting context for these analyses because of its uniquely high levels of pre-treatment populism. In this setting, our treatment may potentially be received and internalized yet fail to affect downstream outcomes (e.g., emotions) due to a ceiling effect. Consistent with this logic, Figure 3(c) demonstrates that in India the treatment affected negative and positive emotions in the expected directions only among weak populists ($p < .05$ and $p < .001$, respectively). By contrast, the treatment did not significantly affect negative or positive emotions among moderate and strong populists. Viewed in light of the results among weak populists in India, and all respondents in the other countries, we do not interpret these null effects as evidence of treatment failure. Rather, we argue that moderate and strong populists in India — the most populist respondents across our four studies — are likely to adopt populist ways of thinking even in the absence of activation (for a similar argument, see Busby, Gubler, and Hawkins 2019). In these sorts of environments, activating latent populism is likely only consequential among the relatively small subset of the population that is not already inclined to see the political world in populist terms. In other settings, where latent populist sentiment is more normally distributed, attempts to activate latent populism are likely to be consequential among a wider swath of the population. More broadly, these cross-national differences underscore the importance of understanding levels of pre-existing populism before interpreting experimental results like ours (see Druckman and Leeper 2012).

Figure 3: Effect of activating latent populism on negative and positive emotions

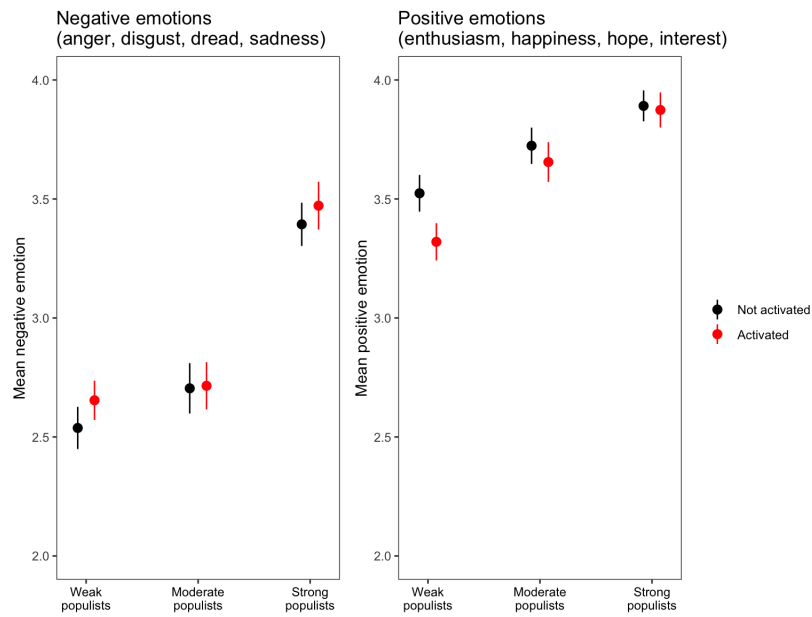
(a) Spain



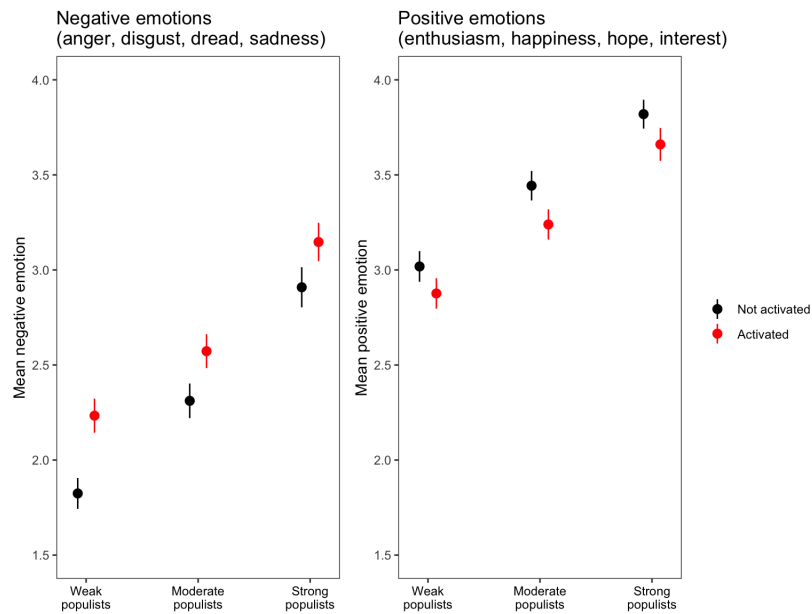
(b) Portugal



(c) India



(d) USA



Note: Point estimates show mean levels of negative emotions (left panels) and positive emotions (right panels). Red points show populism activation (treatment) group; black points show no activation (control) group. Emotions are measured 1–5 (higher values indicate more emotion). Error bars contain 95% confidence intervals.

Conclusion and discussion

This article examines the relationship between two of the most extensively discussed political phenomena in recent years: populism and misinformation. While previous research has documented a correlational relationship between populist attitudes and misinformation, ours is the first study to experimentally manipulate both populist attitudes and corrective information to estimate causal effects on misinformation belief and persistence.

Consistent with previous work, our descriptive results reveal that strong populist attitudes are positively associated with belief in misinformation — a relationship that holds across diverse claims in three countries (Spain, India, United States).²³ Citizens with strong populist attitudes therefore start with higher baseline (pre-activation) levels of misinformation belief. The key question, then, is whether activating latent populism increases these baseline levels, potentially exacerbating pre-existing gaps in beliefs between more and less populist citizens. Experimental results indicate that activating latent populism causes strong emotional reactions; however, activation does not increase belief in misinformation or reduce the effectiveness of corrections. Optimistically, these results suggest that elite attempts to activate latent populism (e.g., during campaigns) are unlikely to make misinformation more prevalent or resistant to correction. Instead, our results suggest that any causal effects of populist attitudes on misinformation belief likely depend on additional psychological or contextual factors beyond activation alone.

These findings offer broader insights for our understanding of populism and misinformation. When it comes to populism, they raise questions about the prevailing account of populism as a latent predisposition whose effects depend on external activation (Ardag et al. 2020; Hawkins, Kaltwasser, and Andreadis 2020; Hawkins and Kaltwasser 2019). In our data, respondents with strong versus weak populist attitudes have very different baseline levels of misinformation belief; however, respondents across the populism spectrum are similarly unresponsive to our activation treatment. This suggests that populist attitudes — and potentially their interaction with related

²³Interestingly, we do not observe this populism-misinformation link in Portugal, the one country in which populism was not a salient political force at the time of our studies — a point to which we return below.

attitudes (e.g., dissatisfaction with institutions) — may shape how citizens interpret political reality even in the absence of explicit activation. In this respect, populist attitudes arguably differ from other fundamental political predispositions, such as partisanship, whose effects are amplified by explicit priming (e.g., Druckman, Peterson, and Slothuus 2013; Slothuus and de Vreese 2010).

While we do not claim to definitively resolve the debate over the stability of populist attitudes, our findings are consistent with the view that populist attitudes are consequential because they reflect relatively stable predispositions rather than because they are momentarily activated. As Schimpf, Wuttke, and Schoen (2024) show, populist attitudes are more strongly associated with outcomes such as regime support among respondents whose attitudes are highly stable, supporting the interpretation that, for these individuals, populist attitudes function as central predispositions. Similarly, although our activation treatment elicited strong emotional reactions, it did not increase affect misinformation belief or persistence. This result echoes findings by Dennison and Turnbull-Dugarte (N.d.), who show that priming respondents with government interventions during global crises did not alter how individuals with stronger populist attitudes perceived the threat.

Our results also offer important lessons for misinformation research. In our four experiments, we find that the effectiveness of corrections varies widely across countries and topics — a finding that is inconsistent with recent multi-country studies which find that corrections are widely effective (Porter, Velez, and Wood 2023; Porter and Wood 2021; Wood and Porter 2019). Of course, past studies and our own experiments focused on different cases of misinformation occurring in different countries at different points in time, making cross-country comparisons challenging. One possibility for the conflicting findings concerns the universe of false claims considered. As explained above, we strove to identify cases of misinformation that were at least moderately salient and varied in terms of (among other factors) populist overtone. Such claims may be more attractive to respondents than a random sample of misinformation claims circulating at any given time. To investigate this possibility, future research could experimentally manipulate the degree of populist language used to describe the same false claims and/or corrections of those claims. Regardless, we encourage future research to examine how populist attitudes affect the processing of a wider set of

misinformation claims across countries.

We note several other limitations to our studies and possible extensions that we think would be particularly worthwhile. First, more attention should be paid to the salience of populist rhetoric and thinking in the pre-treatment environment, ideally with direct measures (e.g., of elite rhetoric or media consumption). Respondents in three of our four countries — Spain, India, and the United States — were exposed to moderate to high levels of populist electoral competition at the time of our studies, raising the possibility that they were pre-treated by real world events before undergoing our experimental activation (Druckman and Leeper 2012). By contrast, elite populism was almost entirely absent in Portugal — the one country where latent populism was not associated with misinformation belief. (However, respondents in all four countries were similarly unaffected by our activation treatment.) We encourage future research to leverage these contextual differences (a la Erisen et al. 2021) to improve our understanding of the conditions under which populism matters for misinformation belief. Second, our experiments activated latent populism with a single approach: dispositional blame attribution. Given the diverse forms of populist communication across countries and parties, future research should explore alternative methods for activating latent populism (e.g., through frames or multimedia treatments). Finally, we call for further research into the psychological processes linking latent populism and misinformation belief — a consistent finding in prior work and our descriptive analyses. Our experimental results indicate that the activation of latent populism is not responsible for this association. We encourage future work to examine how latent populism may interact with other communications (e.g., from elites) or predispositions (e.g., dissatisfaction with institutions) to jointly increase acceptance of false claims.

Pursuing future studies like these would improve our understanding of the conditions under which populism contributes to one of the most pressing political challenges of our time: the prevalence and persistence of misinformation.

References

- Akkerman, Agnes, Cas Mudde, and Andrej Zaslove. 2014. "How Populist Are the People? Measuring Populist Attitudes in Voters." *Comparative Political Studies* 47 (9): 1324–1353.
- American Political Science Association. 2020. "Principles and Guidance for Human Subjects Research]." 4 April 2020 version. Available at <https://www.apsanet.org/Portals/54/diversity>
- Ardag, M Murat, Bruno Castanho Silva, J Philipp Thomeczek, Steffen F Bandlow-Raffalski, and Levente Littvay. 2020. "Populist attitudes and political engagement: Ugly, bad, and sometimes good?" *Representation* 56 (3): 307–330.
- Berinsky, Adam J., Gregory A. Huber, and Gabriel S. Lenz. 2012. "Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk." *Political Analysis* 20 (3): 351–368.
- Blair, Robert A., Jessica Gottlieb, Brendan Nyhan, Laura Paler, Pablo Argote, and Charlene J. Stainfield. 2024. "Interventions to Counter Misinformation: Lessons from the Global North and Applications to the Global South." *Current Opinion in Psychology* 55: 101732.
- Bos, Linda, Christian Schemer, Nicoleta Corbu, Michael Hameleers, Ioannis Andreadis, Anne Schulz, Desiree Schmuck, Carsten Reinemann, and Nayla Fawzi. 2020. "The effects of populism as a social identity frame on persuasion and mobilisation: Evidence from a 15-country experiment." *European Journal of Political Research* 59 (1): 3-24.
- Bos, Linda, Wouter van der Brug, and Claes H de Vreese. 2013. "An experimental test of the impact of style and rhetoric on the perception of right-wing populist and mainstream party leaders." *Acta Politica* 48 (): 192–208.
- Busby, Ethan C., Ryan E. Carlin, Kirk A. Hawkins, and Levente Littvay. 2025. "Speaking populism: ideational vs. issue-based theories of populism." *Frontiers in Political Science* 7.
- Busby, Ethan, David Doyle, Kirk A. Hawkins, and Nina Wiesehomeier. 2019. "Activating Populist Attitudes: The Role of Corruption." In *The Ideational Approach to Populism: Concept, Theory, and Analysis*, ed. Kirk A. Hawkins, Ryan E. Carlin, Levente Littvay, and Cristobal Rovira Kaltwasser. New York: Routledge.
- Busby, Ethan, Joshua R. Gubler, and Kirk A. Hawkins. 2019. "Framing and Blame Attribution in Populist Rhetoric." *Journal of Politics* 81 (2): 616–630.
- Castanho Silva, Bruno, Federico Vegetti, and Levente Littvay. 2017a. "The Elite Is Up to Something: Exploring the Relation Between Populism and Belief in Conspiracy Theories." *Swiss Political Science Review* 23 (4): 423–443.
- Castanho Silva, Bruno, Federico Vegetti, and Levente Littvay. 2017b. "The Elite Is Up to Something: Exploring the Relation Between Populism and Belief in Conspiracy Theories." *Swiss Political Science Review* 23 (4): 423–443.

- Chan, Man-Pui Sally, Christopher R. Jones, Kathleen Hall Jamieson, and Dolores Albarracín. 2017. "Debunking: A Meta-Analysis of the Psychological Efficacy of Messages Countering Misinformation." *Psychological Science* 28 (11): 1531–1546.
- Clifford, Scott, Geoffrey Sheagley, and Spencer Piston. 2021. "Increasing Precision without Altering Treatment Effects: Repeated Measures Designs in Survey Experiments." *American Political Science Review* 115 (3): 1048–1065.
- Coppock, Alexander. 2019. "Generalizing from Survey Experiments Conducted on Mechanical Turk: A Replication Approach." *Political Science Research and Methods* 7 (3): 613–628.
- Coppock, Alexander, Thomas Leeper, and Kevin J. Mullinix. 2018. "Generalizability of heterogeneous treatment effect estimates across samples." *Proceedings of the National Academy of Sciences* 115 (49): 12441–12446.
- Demasi, Clark, Jennifer McCoy, and Levente Littvay. 2024. "Influencing People's Populist Attitudes With Rhetoric and Emotions: An Online Experiment in the United States." *American Behavioral Scientist* 0 (0): 00027642241240359.
- Dennison, James, and Stuart J. Turnbull-Dugarte. N.d. "Populist Attitudes and Threat Perceptions of Global Transformations and Governance: Experimental Evidence from India and the United Kingdom." *Political Psychology*. Forthcoming.
- Druckman, James N., and Cindy Kam. 2011. "Students as Experimental Participants: A Defense of the 'Narrow Data Base'." In *Cambridge Handbook of Experimental Political Science*, ed. James N. Druckman, Donald P. Green, James H. Kuklinski, and Arthur Lupia. New York: Cambridge University Press.
- Druckman, James N., Erik Peterson, and Rune Slothuus. 2013. "How Elite Partisan Polarization Affects Public Opinion Formation." *American Political Science Review* 107 (1): 57–79.
- Druckman, James N., and Thomas J. Leeper. 2012. "Learning More from Political Communication Experiments: Pretreatment and Its Effects." *American Journal of Political Science* 56 (4): 875–896.
- Eberl, Jakob-Moritz, Robert A. Huber, and Esther Greussing. 2021. "From populism to the 'pandemic': why populists believe in COVID-19 conspiracies." *Journal of Elections, Public Opinion and Parties* 31 (sup1): 272–284.
- Ecker, Ullrich K.H., Stephan Lewandowsky, John Cook, Philipp Schmid, Lisa K. Fazio, Nadia Brashier, Panayiota Kendeou, Emily K. Vraga, and Michelle A. Amazeen. 2022. "The Psychological Drivers of Misinformation Belief and Its Resistance to Correction." *Nature Reviews Psychology* 1: 13–29.
- Erisen, Cengiz, Mattia Guidi, Sergio Martini, Selin Toprakkiran, Pierangelo Isernia, and Levente Littvay. 2021. "Psychological Correlates of Populist Attitudes." *Political Psychology* 42 (S1): 149–171.

- Guess, Andrew, Michael Lerner, Jacob M. Montgomery, Brendan Nyhan, Jason Reifler, and Nee-lanjan Sircar. 2020. "A digital media literacy intervention increases discernment between main-stream and false news in the United States and India." *Proceedings of the National Academy of Sciences* 117 (27): 15536–15545.
- Guinjoan, Marc, and Carol Galais. 2023. "I Want to Believe. The Relationship between Conspiratorial Beliefs and Populist Attitudes in Spain." *Electoral Studies* 81: 102574.
- Haglin, Kathryn. 2017. "The Limitations of the Backfire Effect." *Research & Politics* 4 (3).
- Hameleers, Michael. 2021. "They Are Selling Themselves Out to the Enemy! The Content and Effects of Populist Conspiracy Theories." *International Journal of Public Opinion Research* 33 (03): 38-56.
- Hameleers, Michael, Desirée Schmuck, Anne Schulz, Dominique Stefanie Wirz, Jörg Matthes, Linda Bos, Nicoleta Corbu, and Ioannis Andreadis. 2021. "The Effects of Populist Identity Framing on Populist Attitudes Across Europe: Evidence From a 15-Country Comparative Experiment." *International Journal of Public Opinion Research* 33 (3): 491-510.
- Hameleers, Michael, Linda Bos, and Claes de Vreese. 2018. "Framing blame: toward a better understanding of the effects of populist communication on populist party preferences." *Journal of Elections, Public Opinion and Parties* 28 (3): 380–398.
- Hameleers, Michael, Linda Bos, and Claes H De Vreese. 2017. "“They did it”: The effects of emotionalized blame attribution in populist communication." *Communication Research* 44 (6): 870–900.
- Hawkins, Kirk A. 2009. "Is Chávez Populist? Measuring Populist Discourse in Comparative Perspective." *Comparative Political Studies* 42 (8): 1040–1067.
- Hawkins, Kirk A, and Cristóbal Rovira Kaltwasser. 2019. "Introduction: The ideational approach." In *The ideational approach to populism*. Routledge.
- Hawkins, Kirk A, Cristóbal Rovira Kaltwasser, and Ioannis Andreadis. 2020. "The activation of populist attitudes." *Government and Opposition* 55 (2): 283–307.
- Hawkins, Kirk A., Scott Riding, and Cas Mudde. 2012. Measuring Populist Attitudes. Working paper Committee on Concepts and Methods, Research Committee No. 1, International Political Science Association.
- Huber, Robert A. 2020. "The Role of Populist Attitudes in Explaining Climate Change Skepticism and Support for Environmental Protection." *Environmental Politics* 29 (6): 959–982.
- Jerit, Jennifer, and Yangzi Zhao. 2020. "Political Misinformation." *Annual Review of Political Science* 23: 77–94.
- Jost, Pablo, Marcus Maurer, and Joerg Hassler. 2020. "Populism Fuels Love and Anger: The Impact of Message Features on Users’ Reactions on Facebook." *International Journal of Communication* 14 (0).

- Kennedy, Jonathan. 2019. “Populist politics and vaccine hesitancy in Western Europe: An analysis of national-level data.” *European Journal of Public Health* 29 (02).
- Kittel, Rebecca C. 2025. “Let’s talk populist? A survey experiment on effects of (non-) populist discourse on vote choice.” *European Journal of Political Research* 64 (2): 719–743.
- Kosic, Ankica, Corine Stella Kana Kenfack, and Eleonora Dionisi. 2024. “The Relationship between Populism and Attitudes on Vaccine against COVID-19: Trust in Institutions as a Moderation Factor.” *Analyses of Social Issues and Public Policy* 24 (1): 150–169.
- Krupnikov, Yanna, H. Hannah Nam, and Hillary Style. 2021. “Convenience Samples in Political Science Experiments.” In *Advances in Experimental Political Science*, ed. James N. Druckman and Donald P. Green. Cambridge University Press.
- Kunda, Ziva. 1990. “The Case for Motivated Reasoning.” *Psychological Bulletin* 108 (3): 480–98.
- Lodge, Milton, and Charles Taber. 2013. *The Rationalizing Voter*. New York: Cambridge University Press.
- Marcus, George E. 2021. *The Rise of Populism: The Politics of Justice, Anger, and Grievance*. New York: Routledge.
- Medeiros, Mike. 2021. “Demand without supply: Populist attitudes without salient supply-side factors of populism.” *Canadian Journal of Political Science/Revue canadienne de science politique* 54 (4): 918–938.
- Mudde, Cas, and Cristóbal Rovira Kaltwasser. 2017. *Populism: A Very Short Introduction*. Oxford University Press.
- Müller, Jan-Werner. 2022. “What, If Anything, Do Populism and Conspiracy Theories Have to Do with Each Other?” *Social Research: An International Quarterly* 89 (3): 607–625.
- Mullinix, Kevin J., James N. Druckman, and Jeremy Freese. 2015. “The Generalizability of Survey Experiments.” *Journal of Experimental Political Science* 2 (2): 109–138.
- Nyhan, Brendan. 2021. “Why the Backfire Effect Does Not Explain the Durability of Political Misperceptions.” *Proceedings of the National Academy of Sciences* 118 (15): e1912440117.
- Nyhan, Brendan, and Jason Reifler. 2010. “When Corrections Fail: The Persistence of Political Misperceptions.” *Political Behavior* 32 (2): 303–330.
- Nyhan, Brendan, Jason Reifler, and Peter A. Ubel. 2013. “The Hazards of Correcting Myths about Health Care Reform.” *Medical Care* 51 (2): 127–132.
- Papaioannou, Kostas, Myrto Pantazi, and Jan-Willem van Prooijen. 2023. “Unravelling the Relationship Between Populism and Belief in Conspiracy Theories: The Role of Cynicism, Powerlessness and Zero-Sum Thinking.” *British Journal of Psychology* 114 (1): 159–175.
- Pennycook, G., and D.G. Rand. 2022. “Accuracy prompts are a replicable and generalizable approach for reducing the spread of misinformation.” *Nature Communication* 2333 (13).

- Pirro, Andrea LP, and Paul Taggart. 2023. "Populists in power and conspiracy theories." *Party Politics* 29 (3): 413-423.
- Porter, Ethan, and Thomas J. Wood. 2021. "The global effectiveness of fact-checking: Evidence from simultaneous experiments in Argentina, Nigeria, South Africa, and the United Kingdom." *Proceedings of the National Academy of Sciences* 118 (37): e2104235118.
- Porter, Ethan, and Thomas J. Wood. 2024. "Factual Corrections: Concerns and Current Evidence." *Current Opinion in Psychology* 55: 101715.
- Porter, Ethan, Yamil Velez, and Thomas J. Wood. 2023. "Correcting COVID-19 Vaccine Misinformation in 10 Countries." *Royal Society Open Science*.
- Rico, Guillem. 2024. "Ideological Identification, Type of Threat, and Differences in How Anger and Fear Relate to Anti-Immigrant and Populist Attitudes." *American Behavioral Scientist* 0 (0): 00027642241240344.
- Rivera Magos, Sergio, and Gabriela González Pureco. 2024. "Populism, misinformation and political polarization in social media communications by Latin America's populist presidents." *Revista Mexicana de Opinión Pública* (36): 79-107.
- Sandberg, Linn, Kristof Jacobs, and Niels Spierings. 2022. "Populist MPs on Facebook: Adoption and emotional reactions in Austria, the Netherlands, and Sweden." *Scandinavian Political Studies* 45 (4): 504-528.
- Santana-Pereira, José, and João Cancela. 2020. "Demand without Supply? Populist Attitudes and Voting Behaviour in Post-Bailout Portugal." *South European Society and Politics* 25 (2): 205-228.
- Schimpf, Christian H., Alexander Wuttke, and Harald Schoen. 2024. "Neither a Trait nor Wildly Fluctuating: On the Stability of Populist Attitudes and its Implications for Empirical Research." *British Journal of Political Science* 54 (3): 979-992.
- Seawright, Jason. 2012. *Party-System Collapse: The Roots of Crisis in Peru and Venezuela*. Palo Alto, CA: Stanford University Press.
- Sheagley, Geoffrey, and Scott Clifford. 2023. "No Evidence that Measuring Moderators Alters Treatment Effects." *American Journal of Political Science*.
- Slothuus, Rune, and Claes H. de Vreese. 2010. "Political Parties, Motivated Reasoning, and Issue Framing Effects." *Journal of Politics* 72 (3): 630-645.
- Stecula, Dominik A., and Mark Pickup. 2021. "How populism and conservative media fuel conspiracy beliefs about COVID-19 and what it means for COVID-19 behaviors." *Research & Politics* 8 (1): 2053168021993979.
- Törnberg, Petter, and Juliana Chueri. 2025. "When Do Parties Lie? Misinformation and Radical-Right Populism Across 26 Countries." *The International Journal of Press/Politics* 0 (0): 19401612241311886.

- van Kessel, Stijn, Javier Sajuria, and Steven M. Van Hauwaert. 2021. “Informed, uninformed or misinformed? A cross-national analysis of populist party supporters across European democracies.” *West European Politics* 44 (3): 585-610.
- van Prooijen, Jan-Willem, Talia Cohen Rodrigues, Carlotta Bunzel, Oana Georgescu, Dániel Komáromy, and André Krouwel. 2022. “Populist Gullibility: Conspiracy Theories, News Credibility, Bullshit Receptivity, and Paranormal Belief.” *Political Psychology* 43 (6): 1061–1079.
- Walter, Nathan, Jonathan Cohen, R. Lance Holbert, and Yasmin Morag. 2020. “Fact-Checking: A Meta-Analysis of What Works and for Whom.” *Political Communication* 37 (3): 350-375.
- Wood, Thomas, and Ethan Porter. 2019. “The Elusive Backfire Effect: Mass Attitudes’ Steadfast Factual Adherence.” *Political Behavior* 41: 165–163.
- Wuttke, Alexander, Christian Schimpf, and Harald Schoen. 2020. “When the Whole Is Greater than the Sum of Its Parts: On the Conceptualization and Measurement of Populist Attitudes and Other Multidimensional Constructs.” *American Political Science Review* 114 (2): 356–374.

Online Appendix for “Populism and susceptibility to misinformation”

Appendix A: Overview of studies

The table below provides an overview of the studies analyzed in this article. Ns include the number of respondents who reached the experimental portion of the survey. The Netquest samples (studies 1 and 2) included quotas for age, sex, education, and region. The MTurk samples (studies 3 and 4) were restricted to respondents with at least 95% prior task approval rates and who are located in India or the US, respectively.

Appendix Table A1: Overview of studies

	Study 1 (Spain)	Study 2 (Portugal)	Study 3 (India)	Study 4 (USA)
Sample	Netquest (N=8,789)	Netquest (N=4,962)	MTurk (N=3,003)	MTurk (N=3,203)
Data collection	2019/20	2020/21	2021	2021
Populism activation conditions	-control -dispositional -situational*	-control -dispositional	-control -dispositional	-control -dispositional
Total fake news blurbs shown	8	5	9	8
Fake news blurbs per respondent	4	3	5	4

*Study 1 (Spain) included two populism activation treatments — situational blame attribution and dispositional blame attribution — drawn from prior research (Busby, Gubler, and Hawkins 2019). These treatments are similar in format: they ask respondents to arrange a series of national problems in order of importance; on the next screen, respondents are asked to complete a short writing task. The situational activation treatment asks which events or circumstances are responsible for the respondent’s top ranked problem, while the dispositional treatment asks which groups or individuals are responsible and what should be done to them. Past research indicates that dispositional blame attribution causes individuals to express populist sentiment (Busby, Gubler, and Hawkins 2019, study 1) and makes them more likely to support populist candidates (Busby, Gubler, and Hawkins 2019, study 2). By contrast, situational attribution does not. We therefore treat the situational activation treatment in study 1 as a placebo and merge it with the pure control condition. Given the smaller samples in studies 2–4, we omit the situational attribution treatment and compare the dispositional attribution group to a pure control.

Appendix Table A2: Sample descriptives

	Study 1 (Spain)	Study 2 (Portugal)	Study 3 (India)	Study 4 (USA)
N	8,789	4,962	3,003	3,203
Median age	45	52	30	36
Percent female	51.8	49.2	29.4	44.3
Percent university grad	60.2	41.6	82.0	78.7

Appendix B: News blurbs by country

Working with research assistants, we identified fake news stories that were circulating in each country at the time of our experiments and reported on by professional fact-checking organizations. In each country, we aimed to identify a set of stories that varied on the following dimensions: topical focus (e.g., science, religion, education, corruption, generalized conspiracies), salience, and populist overtones. (Our preregistration identifies a subset of stories that are overtly populist in tone. We mark these stories with an asterisk in the list and tables below.) After identifying a large set of potential stories for use in our experiments, we consulted with country experts about the salience of each story and suitability for inclusion in our experiments.

The final set of news stories used in our experiments is listed below. For each story, we wrote a headline and one paragraph overview, which we call a “news blurb.” The blurb resembles the length and format of a social media post or search engine result. For each news blurb, we also wrote a short paragraph that provides corrective information attributed to an expert source (e.g., fact-checkers, public health experts, etc.). To maximize realism, we randomized corrections at the blurb level and attributed corrections to different sources across stories.

Spain

- Climate change (true story about extreme weather events)
(Order of all subsequent blurbs randomized)
- ONE of the following: Genetically modified foods unsafe; vaccine-autism link
- ONE of the following: Replace language classes with religion; mandatory Islamic studies
- ONE of the following: Left-wing (PSOE/Podemos) secret pact*; right-wing (PP/Vox) secret pact*
- ONE of the following: Patent holders; NATO secret fumigations

Portugal

- Climate change (true story about extreme weather events)
(Order of all subsequent blurbs randomized)
- ONE of the following: Genetically modified foods unsafe; vaccine-autism link
- ONE of the following: Left-wing (PPD/PSD/CDS-PP) secret pact*; right-wing (PS/BE) secret pact*
- Patent holders

India

- Climate change (true story about extreme weather events)
(Order of all subsequent blurbs randomized)
- TWO of the following: Vaccine-autism link; Covid–19 side effects; swabs implant devices in brain
- ONE of the following: Law easing mosque construction*; Islamic studies on civil service exam*
- ONE of the following: Patent holders restricting supply; hospital managers hoarding oxygen tanks
- ONE of the following: Cabal releasing Covid–19 variants; MPs get rent paid for*

United States

- Climate change (true story about extreme weather events)
(Order of all subsequent blurbs randomized)
- ONE of the following: Genetically modified foods unsafe OR vaccine-autism link
- ONE of the following: Covid–19 side effects OR swabs implant devices in brain
- ONE of the following: Biden lies about voting laws*; Republicans lie about voting laws*
- BOTH of the following: Patent holders restricting supply; cabal releasing Covid–19 variants

Example stimuli

Here we provide an example news blurb (used in Studies 3 and 4).

YOU HEARD IT HERE: LEAKED DOCXS SHOW SUPER-WEALTHY CABAL PLOTTING TO RELEASE NEW COVID-19 VARIANTS

Thursday (10:30pm EST): Newly released documents suggest a plot by universities, nonprofits, and global elites to release Covid-19 variants on a planned schedule. The website where the documents first appeared claims, “These are the PLANNED COVID-19 VARIANTS - just look at this doc with a table of ‘release dates’ in different major cities!!” Next to the table, the document included logos of universities and organizations including Johns Hopkins University, the World Health Organization, the World Economic Forum and the Bill and Melinda Gates Foundation.

[Correction treatment (attributed to fact checkers)]

After the story went viral, fact checkers were quick to point out that table doesn’t represent the work of any of the named organizations. The World Health Organization and the Bill and Melinda Gates Foundation both responded to press queries to confirm the documents weren’t genuine. The table also falsely claims the delta variant of the coronavirus emerged in June 2021. Finally, the posts ignore that variants occur in the population through random mutations and are not created by humans.

The dependent variable was measured as follows:

As far as you know, how accurate is the statement that an international group of powerful people and institutions is working together to release new Covid-19 variants?

- Totally accurate [4]
- Very accurate [3]
- Not very accurate [2]
- Not at all accurate [1]

Appendix C: Supplemental tables and figures

Table 1 in the main text reports pooled models examining the relationship between latent populism and belief in fake news (preregistered as RQ1). Here we reproduce the same table showing estimates for the covariates that are suppressed in Table 1. The estimates shown in Table 1 are shaded in the table below. We also report separate claim-specific models using the same pre-registered specification in all four countries.

Appendix Table A3: Latent populism and belief in fake news

	<i>DV = belief in false claim (pooled)</i>			
	Study 1 (Spain)	Study 2 (Portugal)	Study 3 (India)	Study 4 (USA)
Moderate populist (tercile 2)	0.07* (0.03)	0.05 (0.05)	−0.10* (0.04)	0.39*** (0.04)
Strong populist (tercile 3)	0.18*** (0.03)	0.12 (0.06)	0.12** (0.04)	0.53*** (0.05)
Conspiracism (tercile 2)	−0.001 (0.03)	0.07 (0.05)	0.14*** (0.04)	0.32*** (0.04)
Conspiracism (tercile 3)	0.06 (0.03)	0.19*** (0.06)	0.44*** (0.05)	0.44*** (0.05)
Ideology (conservative)	0.004 (0.01)	−0.001 (0.01)		0.01* (0.01)
University grad	−0.05 (0.03)	−0.16*** (0.05)	−0.28*** (0.04)	0.24*** (0.04)
Frequent social media news	0.02 (0.02)	−0.02 (0.05)	−0.11*** (0.03)	0.02 (0.03)
Age 29–44	−0.02 (0.04)	−0.15** (0.07)	−0.15*** (0.03)	−0.19*** (0.04)
Age 45–59	−0.11** (0.04)	−0.06 (0.07)	−0.49*** (0.08)	−0.26*** (0.05)
Age 60+	−0.12*** (0.04)	−0.16** (0.08)	−0.51*** (0.18)	−0.33*** (0.07)
Female	0.06** (0.03)	0.06 (0.05)	−0.04 (0.03)	−0.05 (0.03)
Institutional trust (tercile 2)	−0.05 (0.03)	−0.02 (0.06)	0.05 (0.04)	0.04 (0.04)
Institutional trust (tercile 3)	−0.15*** (0.03)	−0.03 (0.06)	0.10** (0.05)	0.29*** (0.05)
Political knowledge (tercile 2)	−0.07* (0.03)	0.14 (0.28)		−0.11** (0.04)
Political knowledge (tercile 3)	−0.14** (0.03)	0.08 (0.28)		−0.36*** (0.04)
Constant	2.11*** (0.06)	2.26*** (0.29)	2.94*** (0.05)	2.05*** (0.06)
Strong populist – moderate populist	0.11***	0.07	0.22***	0.14***
N	5,633	1,463	3,281	3,366

Note: Cell entries are OLS coefficients with clustered standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Political knowledge and left/right ideology were not measured in Study 3 (India). Samples include respondents in pure control condition for each blurb (no populism activation, no correction). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A4: Latent populism and belief in fake news (Spain, 1 of 2)

	<i>DV: belief in false claim</i>			
	GMOs unsafe	Vaccines unsafe	Religion in school	Islamic studies
Moderate populist (tercile 2)	0.06 (0.08)	0.02 (0.08)	0.17** (0.07)	0.01 (0.07)
Strong populist (tercile 3)	0.26*** (0.09)	0.15* (0.08)	0.15** (0.07)	0.11 (0.07)
Conspiracism (tercile 2)	0.17** (0.08)	−0.07 (0.08)	−0.18*** (0.07)	−0.02 (0.07)
Conspiracism (tercile 3)	0.33*** (0.09)	−0.16* (0.09)	−0.09 (0.07)	−0.09 (0.07)
Ideology (conservative)	−0.01 (0.01)	−0.003 (0.01)	−0.003 (0.01)	0.05*** (0.01)
University grad	−0.07 (0.07)	−0.06 (0.07)	−0.03 (0.06)	−0.003 (0.06)
Frequent social media news	0.11* (0.07)	0.06 (0.06)	0.09* (0.05)	0.02 (0.06)
Age 29–44	0.02 (0.10)	0.09 (0.10)	−0.08 (0.08)	−0.02 (0.08)
Age 45–59	−0.06 (0.10)	−0.09 (0.10)	−0.26*** (0.08)	−0.19** (0.09)
Age 60+	−0.09 (0.12)	−0.24** (0.12)	−0.26*** (0.10)	−0.11 (0.10)
Female	0.16** (0.07)	−0.01 (0.07)	0.08 (0.05)	0.01 (0.06)
Institutional trust (tercile 2)	−0.02 (0.08)	−0.11 (0.08)	−0.04 (0.07)	−0.10 (0.07)
Institutional trust (tercile 3)	−0.11 (0.09)	−0.06 (0.08)	−0.10 (0.07)	−0.19*** (0.07)
Political knowledge (tercile 2)	−0.12 (0.09)	−0.11 (0.09)	−0.11 (0.07)	−0.03 (0.08)
Political knowledge (tercile 3)	−0.16* (0.09)	−0.10 (0.09)	−0.17** (0.07)	−0.03 (0.08)
Constant	2.46*** (0.17)	2.00*** (0.16)	1.88*** (0.13)	1.68*** (0.15)
N	685	675	883	927

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Sample includes respondents in pure control condition for each blurb (no populism activation, no correction). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A5: Latent populism and belief in fake news (Spain, 2 of 2)

	<i>DV: belief in false claim</i>			
	Left-wing*	Right-wing*	Patent	NATO
	pact	pact	holders	fumigations
Moderate populist (tercile 2)	0.05 (0.07)	0.21*** (0.08)	0.09 (0.08)	−0.08 (0.10)
Strong populist (tercile 3)	0.08 (0.08)	0.35*** (0.08)	0.18** (0.09)	0.23** (0.11)
Conspiracism (tercile 2)	−0.04 (0.07)	−0.02 (0.08)	0.07 (0.08)	0.23** (0.10)
Conspiracism (tercile 3)	0.04 (0.08)	0.07 (0.09)	0.31*** (0.09)	0.29** (0.12)
Ideology (conservative)	0.05*** (0.01)	−0.06*** (0.01)	0.01 (0.01)	−0.001 (0.02)
University grad	−0.14** (0.07)	0.02 (0.07)	0.002 (0.07)	−0.20** (0.09)
Frequent social media news	0.15** (0.06)	−0.04 (0.06)	−0.0002 (0.07)	−0.04 (0.08)
Age 29–44	−0.14 (0.09)	−0.05 (0.10)	0.23** (0.10)	−0.14 (0.13)
Age 45–59	−0.15 (0.10)	−0.19* (0.10)	0.29*** (0.10)	−0.29** (0.14)
Age 60+	−0.31*** (0.11)	−0.26** (0.11)	0.42*** (0.12)	−0.36** (0.15)
Female	0.06 (0.06)	−0.08 (0.07)	0.02 (0.07)	0.28*** (0.09)
Institutional trust (tercile 2)	0.10 (0.07)	−0.01 (0.08)	−0.18** (0.08)	−0.01 (0.10)
Institutional trust (tercile 3)	−0.10 (0.08)	−0.13 (0.08)	−0.28*** (0.09)	−0.02 (0.11)
Political knowledge (tercile 2)	−0.12 (0.08)	−0.03 (0.09)	0.01 (0.09)	−0.04 (0.12)
Political knowledge (tercile 3)	−0.06 (0.08)	−0.10 (0.09)	−0.08 (0.09)	−0.14 (0.12)
Constant	1.98*** (0.15)	2.50*** (0.16)	2.25*** (0.17)	1.96*** (0.22)
N	654	691	709	409

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Sample includes respondents in pure control condition for each blurb (no populism activation, no correction). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A6: Latent populism and belief in fake news (Portugal)

	<i>DV: belief in false claim</i>				
	GMOs unsafe	Vaccines unsafe	Left-wing* pact	Right-wing* pact	Patent holders
Moderate populist (tercile 2)	0.06 (0.12)	−0.05 (0.12)	−0.20* (0.11)	0.15 (0.13)	0.13 (0.09)
Strong populist (tercile 3)	0.04 (0.15)	0.17 (0.15)	−0.05 (0.14)	0.07 (0.15)	0.22** (0.11)
Conspiracism (tercile 2)	0.16 (0.12)	−0.06 (0.12)	0.12 (0.12)	−0.11 (0.13)	0.14 (0.09)
Conspiracism (tercile 3)	0.28** (0.14)	0.01 (0.13)	0.41*** (0.13)	−0.04 (0.14)	0.30*** (0.11)
Ideology (conservative)	−0.05** (0.02)	0.01 (0.02)	−0.03 (0.02)	0.08*** (0.02)	−0.003 (0.02)
University grad	−0.24** (0.10)	−0.38*** (0.11)	0.11 (0.10)	0.06 (0.11)	−0.21** (0.08)
Frequent social media news	−0.11 (0.10)	−0.06 (0.10)	−0.05 (0.10)	0.06 (0.11)	−0.02 (0.08)
Age 29–44	−0.15 (0.17)	−0.01 (0.15)	−0.33** (0.15)	−0.47** (0.20)	−0.05 (0.13)
Age 45–59	−0.001 (0.16)	−0.05 (0.15)	−0.21 (0.14)	−0.61*** (0.19)	0.11 (0.13)
Age 60+	−0.02 (0.18)	−0.15 (0.17)	−0.16 (0.16)	−0.90*** (0.21)	0.02 (0.14)
Female	0.37*** (0.10)	−0.10 (0.10)	0.16 (0.10)	−0.18 (0.12)	−0.02 (0.08)
Institutional trust (tercile 2)	0.03 (0.12)	−0.004 (0.12)	0.07 (0.12)	−0.04 (0.14)	−0.13 (0.10)
Institutional trust (tercile 3)	0.04 (0.13)	−0.07 (0.13)	−0.02 (0.13)	−0.15 (0.14)	−0.07 (0.10)
Political knowledge (tercile 2)	−0.58 (0.80)	0.33 (0.41)	−0.42 (0.57)	−0.06 (0.51)	−0.06 (0.51)
Political knowledge (tercile 3)	−0.60 (0.79)	0.25 (0.41)	−0.51 (0.57)	0.02 (0.12)	−0.12 (0.50)
Constant	3.25*** (0.84)	1.76*** (0.41)	2.88*** (0.60)	2.43*** (0.32)	2.55*** (0.51)
N	246	242	261	247	467

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Sample includes respondents in pure control condition for each blurb (no populism activation, no correction). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A7: Latent populism and belief in fake news (India, 1 of 2)

	<i>DV: belief in false claim</i>				
	Vaccines unsafe	Covid vax side effx	Nasal swabs	Mosque* construction	Islamic* studies
Moderate populist (tercile 2)	−0.04 (0.11)	−0.20* (0.11)	−0.26** (0.12)	−0.05 (0.13)	−0.38*** (0.13)
Strong populist (tercile 3)	0.18 (0.12)	0.13 (0.12)	0.06 (0.14)	0.14 (0.15)	−0.16 (0.15)
Conspiracism (tercile 2)	0.26** (0.11)	0.19* (0.11)	0.03 (0.13)	−0.08 (0.13)	0.16 (0.14)
Conspiracism (tercile 3)	0.32** (0.14)	0.34** (0.13)	0.55*** (0.15)	0.34** (0.16)	0.57*** (0.17)
University grad	−0.25** (0.11)	−0.39*** (0.11)	−0.36** (0.14)	−0.45*** (0.12)	−0.12 (0.14)
Frequent social media news	−0.13 (0.09)	−0.01 (0.09)	−0.08 (0.10)	−0.12 (0.10)	−0.21* (0.11)
Age 29–44	−0.09 (0.09)	−0.23*** (0.09)	−0.18* (0.10)	−0.13 (0.10)	−0.15 (0.11)
Age 45–59	−0.65*** (0.23)	−0.62** (0.25)	−0.95*** (0.28)	−0.30 (0.27)	−0.23 (0.28)
Age 60+	0.71 (0.44)	−1.17** (0.51)	−0.69 (0.55)	−0.62 (0.53)	−0.005 (0.65)
Female	−0.01 (0.09)	−0.05 (0.09)	−0.04 (0.10)	−0.14 (0.11)	0.08 (0.11)
Institutional trust (tercile 2)	0.15 (0.11)	0.05 (0.10)	0.30** (0.12)	0.29** (0.13)	0.12 (0.13)
Institutional trust (tercile 3)	0.22* (0.13)	0.14 (0.13)	0.28* (0.15)	0.34** (0.16)	0.23 (0.17)
Constant	2.73*** (0.15)	3.02*** (0.15)	2.75*** (0.19)	2.95*** (0.17)	2.91*** (0.19)
N	428	460	393	347	305

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Sample includes respondents in pure control condition for each blurb (no populism activation, no correction). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A8: Latent populism and belief in fake news (India, 2 of 2)

	<i>DV: belief in false claim</i>			
	Patent holders	CO2 tanks	Covid vaccines	MPs'* rent
Moderate populist (tercile 2)	0.02 (0.11)	0.06 (0.11)	0.05 (0.13)	−0.02 (0.11)
Strong populist (tercile 3)	0.15 (0.11)	0.29** (0.12)	0.08 (0.13)	0.11 (0.13)
Conspiracism (tercile 2)	0.05 (0.11)	0.16 (0.11)	0.35*** (0.12)	0.22* (0.12)
Conspiracism (tercile 3)	0.34*** (0.13)	0.39*** (0.14)	0.69*** (0.16)	0.55*** (0.14)
University grad	−0.28*** (0.11)	−0.13 (0.12)	−0.10 (0.13)	−0.29** (0.11)
Frequent social media news	−0.11 (0.09)	−0.03 (0.09)	−0.23** (0.10)	−0.15 (0.09)
Age 29–44	−0.11 (0.08)	−0.03 (0.09)	−0.17* (0.10)	−0.16* (0.09)
Age 45–59	−0.11 (0.23)	−0.44* (0.23)	−0.59** (0.26)	−0.10 (0.27)
Age 60+	−1.89*** (0.53)	−1.01 (0.77)	−0.14 (0.59)	−0.51 (0.48)
Female	−0.11 (0.09)	−0.07 (0.09)	−0.03 (0.10)	−0.03 (0.10)
Institutional trust (tercile 2)	0.03 (0.10)	−0.12 (0.11)	−0.20 (0.12)	−0.25** (0.11)
Institutional trust (tercile 3)	0.08 (0.12)	−0.30** (0.13)	−0.10 (0.15)	−0.10 (0.15)
Constant	3.07*** (0.14)	3.00*** (0.15)	2.81*** (0.17)	3.15*** (0.16)
N	350	345	311	342

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Sample includes respondents in pure control condition for each blurb (no populism activation, no correction). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A9: Latent populism and belief in fake news (USA, 1 of 2)

	<i>DV: belief in false claim</i>			
	GMOs unsafe	Vaccines unsafe	Covid vax side effx	Nasal swabs
Moderate populist (tercile 2)	0.45*** (0.11)	0.31*** (0.12)	0.47*** (0.14)	0.60*** (0.13)
Strong populist (tercile 3)	0.49*** (0.14)	0.30** (0.15)	0.46*** (0.16)	0.75*** (0.16)
Conspiracism (tercile 2)	0.34*** (0.11)	0.51*** (0.12)	0.48*** (0.14)	0.33** (0.13)
Conspiracism (tercile 3)	0.53*** (0.14)	0.56*** (0.14)	0.62*** (0.16)	0.38** (0.15)
Ideology (conservative)	0.01 (0.02)	0.05** (0.02)	0.04 (0.03)	0.002 (0.03)
University grad	0.26** (0.10)	0.25** (0.13)	−0.02 (0.13)	0.57*** (0.13)
Frequent social media news	0.08 (0.08)	0.16* (0.09)	0.13 (0.11)	−0.04 (0.10)
Age 29–44	−0.20* (0.11)	−0.19* (0.11)	−0.08 (0.13)	−0.09 (0.12)
Age 45–59	−0.25* (0.13)	0.06 (0.14)	−0.16 (0.16)	−0.47*** (0.15)
Age 60+	−0.12 (0.21)	−0.29 (0.20)	0.004 (0.22)	−0.42** (0.19)
Female	0.18** (0.08)	−0.07 (0.09)	−0.09 (0.10)	−0.08 (0.10)
Institutional trust (tercile 2)	−0.01 (0.11)	0.12 (0.11)	−0.17 (0.12)	0.27** (0.13)
Institutional trust (tercile 3)	0.20 (0.12)	0.48*** (0.14)	0.21 (0.15)	0.55*** (0.15)
Political knowledge (tercile 2)	−0.07 (0.11)	−0.12 (0.13)	−0.04 (0.15)	−0.02 (0.15)
Political knowledge (tercile 3)	−0.31*** (0.10)	−0.46*** (0.11)	−0.29** (0.13)	−0.14 (0.13)
Constant	2.03*** (0.17)	1.70*** (0.19)	1.99*** (0.21)	1.11*** (0.21)
N	351	370	329	353

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Sample includes respondents in pure control condition for each blurb (no populism activation, no correction). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A10: Latent populism and belief in fake news (USA, 2 of 2)

	<i>DV: belief in false claim</i>			
	Dems* lie	GOP* lies	Patent holders	Covid variants
Moderate populist (tercile 2)	0.16 (0.12)	0.31*** (0.11)	0.15* (0.08)	0.53*** (0.08)
Strong populist (tercile 3)	0.33** (0.14)	0.57*** (0.13)	0.21** (0.09)	0.79*** (0.10)
Conspiracism (tercile 2)	0.14 (0.12)	0.45*** (0.11)	0.28*** (0.08)	0.31*** (0.08)
Conspiracism (tercile 3)	0.26* (0.14)	0.62*** (0.12)	0.45*** (0.09)	0.35*** (0.10)
Ideology (conservative)	−0.07*** (0.02)	0.06** (0.02)	−0.01 (0.01)	0.05*** (0.02)
University grad	0.14 (0.11)	0.41*** (0.11)	0.01 (0.08)	0.29*** (0.08)
Frequent social media news	−0.08 (0.09)	−0.01 (0.08)	0.03 (0.06)	0.02 (0.07)
Age 29–44	−0.35*** (0.11)	−0.13 (0.11)	−0.19** (0.07)	−0.22*** (0.08)
Age 45–59	−0.47*** (0.13)	−0.36*** (0.13)	−0.13 (0.09)	−0.30*** (0.10)
Age 60+	−0.63*** (0.23)	−0.002 (0.18)	−0.31** (0.13)	−0.32** (0.14)
Female	−0.08 (0.09)	−0.11 (0.09)	0.01 (0.06)	−0.14** (0.06)
Institutional trust (tercile 2)	0.33*** (0.11)	−0.33*** (0.10)	0.02 (0.07)	0.06 (0.08)
Institutional trust (tercile 3)	0.60*** (0.14)	−0.24* (0.12)	0.24*** (0.09)	0.44*** (0.10)
Political knowledge (tercile 2)	−0.07 (0.13)	−0.13 (0.12)	−0.17** (0.08)	−0.18** (0.09)
Political knowledge (tercile 3)	−0.12 (0.11)	−0.41*** (0.11)	−0.33*** (0.07)	−0.56*** (0.08)
Constant	2.76*** (0.18)	2.04*** (0.17)	2.68*** (0.13)	1.68*** (0.13)
N	379	388	769	756

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable ranges from 1–4 with higher values indicating greater belief in false claims. This specification was preregistered as an exploratory research question (RQ1). Sample includes respondents in pure control condition for each blurb (no populism activation, no correction). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A11: Effect of populism activation on fake news belief (H1, pooled)

	<i>DV: average belief in false claims</i>			
	Spain	Portugal	India	USA
Populism activation	0.03 (0.02)	0.02 (0.04)	0.03 (0.04)	0.00 (0.04)
Moderate populist (tercile 2)	0.10*** (0.02)	0.11*** (0.03)	−0.003 (0.05)	0.66*** (0.04)
Strong populist (tercile 3)	0.23*** (0.03)	0.24*** (0.04)	0.41*** (0.04)	1.05*** (0.04)
Activation × moderate	0.04 (0.03)	0.03 (0.05)	−0.01 (0.06)	−0.02 (0.06)
Activation × strong	−0.05 (0.03)	0.04 (0.05)	0.04 (0.06)	−0.10 (0.06)
Constant	1.89*** (0.02)	2.06 (0.02)	2.67 (0.03)	1.98 (0.03)
<i>Effect of populism activation:</i>				
Weak populists (tercile 1)	0.03	0.02	0.03	0.00
Moderate populists (tercile 2)	0.08***	0.05	0.02	−0.02
Strong populists (tercile 3)	0.01	0.06	0.06	−0.10*
Respondent fixed effects	✓	✓	✓	✓
N	8,697	3,201	2,817	3,024

Note: Cell entries are OLS coefficients with clustered standard errors in parentheses. Dependent variable is the average belief in all false claims respondent was randomly displayed, which ranges from 1–4 with higher values indicating greater belief. Models include all fake news stories from all studies. Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A12: Effect of populism activation on fake news belief (H1, claim-specific models, Spain)

DV: belief in false claim								
	GMOs unsafe	Vaccines unsafe	Religion in school	Islamic studies	Left-wing* pact	Right-wing* pact	Patent holders	NATO fumigations
Populism activation	0.02 (0.05)	0.08 (0.05)	-0.004 (0.05)	-0.07 (0.05)	0.08 (0.05)	0.10* (0.05)	0.03 (0.05)	0.03 (0.05)
Moderate populist (tercile 2)	0.12*** (0.04)	0.10*** (0.04)	0.12*** (0.04)	0.03 (0.04)	0.14*** (0.04)	0.10** (0.04)	0.14*** (0.04)	0.15*** (0.04)
Strong populist (tercile 3)	0.26*** (0.04)	0.15*** (0.04)	0.14*** (0.04)	0.05 (0.04)	0.19*** (0.04)	0.24*** (0.04)	0.33*** (0.04)	0.31*** (0.04)
Activation × moderate	0.01 (0.07)	-0.11 (0.07)	0.10* (0.06)	0.14** (0.07)	0.02 (0.06)	-0.01 (0.07)	0.07 (0.07)	0.12* (0.07)
Activation × strong	-0.05 (0.07)	-0.07 (0.07)	0.02 (0.06)	0.04 (0.07)	0.01 (0.07)	-0.16** (0.07)	-0.01 (0.07)	-0.05 (0.07)
Constant	2.40*** (0.03)	1.72*** (0.03)	1.52*** (0.03)	1.72*** (0.03)	1.92*** (0.03)	2.00*** (0.03)	2.40*** (0.03)	1.70*** (0.03)
N	4,355	4,312	4,419	4,240	4,293	4,354	4,395	4,262

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable is belief in the false claim (measured 1–4 where higher values indicate greater belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A13: Effect of populism activation on fake news belief (H1, claim-specific models, Portugal)

	<i>DV: belief in false claim</i>				
	GMOs unsafe	Vax unsafe	Left-wing* pact	Right-wing* pact	Patent holders
Populism activation	−0.04 (0.07)	−0.08 (0.06)	0.03 (0.06)	0.02 (0.07)	0.10 (0.05)
Moderate populist (tercile 2)	0.04 (0.07)	0.10 (0.06)	0.001 (0.06)	0.14* (0.07)	0.23** (0.05)
Strong populist (tercile 3)	0.17* (0.07)	0.17* (0.07)	0.14 (0.07)	0.21** (0.07)	0.37** (0.06)
Activation × moderate	0.11 (0.09)	0.10 (0.09)	−0.02 (0.09)	0.02 (0.10)	−0.03 (0.07)
Activation × strong	−0.01 (0.10)	0.05 (0.10)	−0.03 (0.10)	0.05 (0.10)	0.09 (0.08)
Constant	2.39*** (0.05)	1.57*** (0.04)	2.09*** (0.04)	1.99*** (0.05)	2.20*** (0.04)
N	1,569	1,628	1,639	1,549	2,946

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable is belief in the false claim (measured 1–4 where higher values indicate greater belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A14: Effect of populism activation on fake news belief (H1, claim-specific models, India)

DV: belief in false claim									
	Vaccines unsafe	Covid vax side effx	Nasal swabs	Mosque* construction	Islamic* studies	Patent holders	CO2 tanks	Covid variants	MPs'* rent
Populism activation	0.06 (0.07)	0.02 (0.07)	0.05 (0.08)	0.05 (0.08)	-0.02 (0.08)	0.06 (0.07)	-0.04 (0.08)	0.03 (0.08)	0.04 (0.08)
Moderate populist (tercile 2)	0.03 (0.07)	-0.03 (0.07)	-0.02 (0.08)	0.07 (0.09)	-0.14* (0.09)	0.03 (0.08)	0.01 (0.08)	0.03 (0.09)	-0.01 (0.08)
Strong populist (tercile 3)	0.48*** (0.07)	0.41*** (0.07)	0.50*** (0.08)	0.42*** (0.08)	0.37*** (0.08)	0.36*** (0.07)	0.31*** (0.07)	0.41*** (0.08)	0.41*** (0.07)
Activation × moderate	0.004 (0.10)	-0.14 (0.10)	0.04 (0.11)	-0.14 (0.12)	0.14 (0.12)	0.001 (0.11)	0.03 (0.11)	0.07 (0.12)	-0.08 (0.11)
Activation × strong	-0.02 (0.10)	0.11 (0.10)	-0.02 (0.11)	0.06 (0.12)	0.03 (0.12)	0.07 (0.10)	0.08 (0.10)	0.02 (0.11)	0.01 (0.11)
Constant	2.63*** (0.05)	2.70*** (0.05)	2.53*** (0.06)	2.57*** (0.06)	2.72*** (0.06)	2.75*** (0.05)	2.83*** (0.05)	2.66*** (0.06)	2.73*** (0.05)
N	1,872	1,883	1,861	1,460	1,352	1,420	1,391	1,378	1,436

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable is belief in the false claim (measured 1–4 where higher values indicate greater belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A15: Effect of populism activation on fake news belief (H1, claim-specific models, USA)

	<i>DV: belief in false claim</i>							
	GMOs unsafe	Vaccines unsafe	Covid vax side effx	Nasal swabs	Dems* lie	GOP* lies	Patent holders	Covid variants
Populism activation	0.005 (0.07)	-0.03 (0.08)	0.09 (0.08)	-0.03 (0.09)	0.02 (0.08)	0.02 (0.08)	0.004 (0.05)	-0.04 (0.06)
Moderate populist (tercile 2)	0.60*** (0.07)	0.70*** (0.08)	0.69*** (0.08)	0.90*** (0.09)	0.44*** (0.08)	0.62*** (0.08)	0.45*** (0.05)	0.89*** (0.06)
Strong populist (tercile 3)	0.91*** (0.08)	1.13*** (0.08)	0.92*** (0.09)	1.45*** (0.09)	0.87*** (0.08)	1.06*** (0.09)	0.76*** (0.05)	1.32*** (0.06)
Activation $\times$ moderate	-0.06 (0.10)	-0.07 (0.11)	-0.14 (0.11)	0.04 (0.12)	-0.07 (0.11)	0.10 (0.11)	-0.02 (0.07)	-0.001 (0.08)
Activation $\times$ strong	-0.13 (0.11)	-0.08 (0.12)	-0.11 (0.12)	-0.10 (0.13)	-0.17 (0.12)	-0.19 (0.12)	-0.07 (0.08)	-0.05 (0.09)
Constant	2.18*** (0.05)	1.93*** (0.06)	2.06*** (0.06)	1.43*** (0.06)	2.23*** (0.06)	2.00*** (0.06)	2.31*** (0.04)	1.63*** (0.04)
N	1,497	1,482	1,516	1,535	1,486	1,532	3,007	3,013

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable is belief in the false claim (measured 1–4 where higher values indicate greater belief). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A16: Effect of corrections on fake news belief (H2, claim-specific models, Spain)

DV: belief in false claim								
	GMOs unsafe	Vaccines unsafe	Religion in school	Islamic studies	Left-wing* pact	Right-wing* pact	Patent holders	NATO fumigations
Correction	-0.10*** (0.03)	0.06* (0.03)	-0.02 (0.03)	0.06* (0.03)	-0.03 (0.03)	-0.06* (0.03)	-0.06* (0.03)	-0.05 (0.04)
Constant	2.61*** (0.03)	1.77*** (0.03)	1.64*** (0.02)	1.70*** (0.02)	2.09*** (0.03)	2.17*** (0.03)	2.62*** (0.03)	1.91*** (0.03)
N	4,362	4,322	4,422	4,254	4,303	4,362	4,403	4,272

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable is belief in false claim (measured 1-4, where higher values indicate more belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A17: Effect of corrections on fake news belief (H2, claim-specific models, Portugal)

<i>DV: belief in false claim</i>					
	GMOs unsafe	Vaccines unsafe	Left-wing* pact	Right-wing* pact	Patent holders
Correction	−0.21*** (0.04)	−0.05 (0.04)	−0.22*** (0.04)	−0.14*** (0.04)	−0.14*** (0.03)
Constant	2.59*** (0.04)	1.67*** (0.03)	2.28*** (0.03)	2.21*** (0.04)	2.53*** (0.03)
N	1,573	1,633	1,644	1,553	2,955

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable is belief in false claim (measured 1–4, where higher values indicate more belief). Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Table A18: Effect of corrections on fake news belief (H2, claim-specific models, India)

<i>DV: belief in false claim</i>									
	Vaccines unsafe	Covid vax side effx	Nasal swabs	Mosque* construction	Islamic* studies	Patent holders	CO2 tanks	Covid variants	MPs'* rent
Correction	-0.04 (0.04)	0.03 (0.04)	0.05 (0.05)	0.003 (0.05)	-0.06 (0.05)	0.001 (0.04)	-0.10* (0.04)	0.02 (0.03)	-0.07 (0.05)
Constant	2.86*** (0.03)	2.82*** (0.03)	2.70*** (0.03)	2.75*** (0.03)	2.86*** (0.04)	2.93*** (0.03)	2.99*** (0.03)	2.83*** (0.03)	2.92*** (0.03)
N	1,872	1,883	1,861	1,460	1,352	1,420	1,391	1,378	1,436

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable is belief in false claim (measured 1-4, where higher values indicate more belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A19: Effect of corrections on fake news belief (H2, claim-specific models, USA)

DV: belief in false claim								
	GMOs unsafe	Vaccines unsafe	Covid side effx	Nasal swabs	Dems* lie	GOP* lies	Patent holders	Covid variants
Correction	-0.05 (0.05)	0.02 (0.05)	0.06 (0.05)	0.02 (0.06)	-0.19** (0.05)	-0.03 (0.05)	-0.10* (0.03)	0.07 (0.04)
Constant	2.67*** (0.03)	2.49*** (0.04)	2.58*** (0.04)	2.18*** (0.04)	2.71*** (0.03)	2.58*** (0.04)	2.75*** (0.02)	2.31*** (0.03)
N	1,497	1,483	1,517	1,535	1,487	1,532	3,008	3,014

Note: Cell entries are OLS coefficients with standard errors in parentheses. Dependent variable is belief in false claim (measured 1–4, where higher values indicate more belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A20: Effect of corrections on fake news belief
(H3, pooled, Spain)

	<i>DV: belief in false claim</i>	
	No activation	Activation
Correction	−0.001 (0.03)	−0.03 (0.04)
Moderate populist (tercile 2)	0.09** (0.03)	0.13** (0.04)
Strong populist (tercile 3)	0.22*** (0.03)	0.15** (0.03)
Correction × moderate	0.02 (0.03)	0.03 (0.05)
Correction × strong	−0.02 (0.04)	0.04 (0.05)
Constant	1.92*** (0.02)	1.97*** (0.03)
<i>Effect of correction by tercile:</i>		
Weak populists	−0.001	−0.03
Moderate populists	0.02	0.01
Strong populists	−0.02	0.01
N (respondent-blurbs)	23,070	11,560

Note: Cell entries are OLS coefficients with clustered standard errors in parentheses. Dependent variable is belief in false claim (measured 1–4, where higher values indicate more belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A21: Effect of corrections on fake news belief
(H3, pooled, Portugal)

	<i>DV: belief in false claim</i>	
	No activation	Activation
Correction	−0.22*** (0.05)	−0.20*** (0.05)
Moderate populist (tercile 2)	0.08 (0.05)	0.08 (0.05)
Strong populist (tercile 3)	0.18** (0.06)	0.20** (0.06)
Correction × moderate	0.06 (0.06)	0.10 (0.06)
Correction × strong	0.10 (0.07)	0.12 (0.07)
Constant	2.21*** (0.04)	2.22*** (0.04)
<i>Effect of correction by tercile:</i>		
Weak populists	−0.22***	−0.20***
Moderate populists	−0.16***	−0.10*
Strong populists	−0.13*	−0.08
N (respondent-blurbs)	4,682	4,649

Note: Cell entries are OLS coefficients with clustered standard errors in parentheses. Dependent variable is belief in false claim (measured 1–4, where higher values indicate more belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A22: Effect of corrections on fake news belief (H3, pooled, India)

	<i>DV: belief in false claim</i>	
	No activation	Activation
Correction	−0.01 (0.04)	0.07 (0.04)
Moderate populist (tercile 2)	0.02 (0.05)	0.06 (0.05)
Strong populist (tercile 3)	0.44*** (0.05)	0.47*** (0.05)
Correction × moderate	−0.05 (0.06)	−0.14** (0.05)
Correction × strong	−0.06 (0.05)	−0.03 (0.05)
Constant	2.68*** (0.04)	2.67*** (0.04)
<i>Effect of correction by tercile:</i>		
Weak populists	−0.01	0.07
Moderate populists	−0.06	−0.08*
Strong populists	−0.06	0.04
N (respondent-blurbs)	7,199	6,854

Note: Cell entries are OLS coefficients with clustered standard errors in parentheses. Dependent variable is belief in false claim (measured 1–4, where higher values indicate more belief). Significance levels: *p<.05, **p<.01, ***p<.001.

Appendix Table A23: Effect of corrections on fake news belief
(H3, pooled, USA)

	<i>DV: belief in false claim</i>	
	No activation	Activation
Correction	−0.05 (0.04)	−0.06 (0.04)
Moderate populist (tercile 2)	0.65*** (0.05)	0.60*** (0.05)
Strong populist (tercile 3)	1.05*** (0.05)	0.91*** (0.05)
Correction × moderate	0.02 (0.05)	0.07 (0.05)
Correction × strong	0.01 (0.06)	0.07 (0.06)
Constant	2.00*** (0.04)	2.01*** (0.04)
<i>Effect of correction by tercile:</i>		
Weak populists	−0.05	−0.06
Moderate populists	−0.04	0.01
Strong populists	−0.05	0.01
N (respondent-blurbs)	7,455	7,613

Note: Cell entries are OLS coefficients with clustered standard errors in parentheses. Dependent variable is belief in false claim (measured 1–4, where higher values indicate more belief). Significance levels: *p<.05, **p<.01, ***p<.001.

References

Busby, Ethan, Joshua R. Gubler, and Kirk A. Hawkins. 2019. “Framing and Blame Attribution in Populist Rhetoric.” *Journal of Politics* 81 (2): 616–630.

Online Appendix D: Preregistrations

As explained in the manuscript (note 8), we filed two preregistrations. The first was filed in February 2021 and covered the Spain and Portugal studies. After we secured additional funding, we filed a second preregistration in December 2021, which covered the India and US studies.

Below, we provide screenshots of the OSF preregistration page, which displays the date and time of each filing, and the accompanying pre-analysis plans.

- Home
- Search OSF
- Support
- Registries
 - Discover
 - Registry Details
 - Overview
 - Metadata
 - Files
 - Resources
 - Wiki
 - Components
 - Links
 - Analytics
 - Recent Activity
- Preprints
- Meetings

Populism And The Persistence Of Misinformation: Experimental Evidence From Europe

Data
 Analytic Code
 Materials
 Papers
 Supplements

Public registration
Updates

General Information About The Study

Title of Study
Populism and the persistence of misinformation: Experimental evidence from Europe

EGAP Registration ID
20210206AB

Timestamp of original registration
2021-02-06 16:08:00 -0500

Acknowledgements
No data

Is one of the study authors a university faculty member?
Yes

Other author affiliation
No data

Is this Registration Prospective or Retrospective?
Other (describe in text box below)

Metadata

Contributors
[REDACTED]

Resource Type
No resource type

Description
We examine whether populism makes individuals more likely to endorse false claims and reject corrections. We do so with survey experiments in ...
[Read more](#)

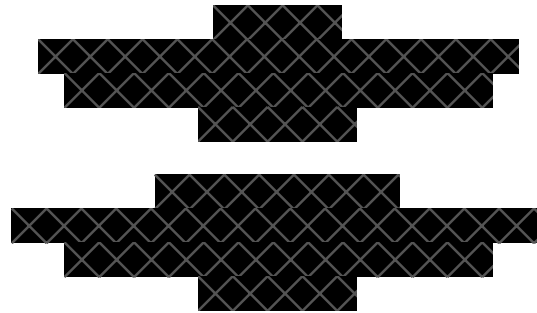
Registration Type
Outdated EGAP Registration (DO NOT USE)

Registry
egap Registry

Date Created Aug 18, 2021, 1:49 AM	Date Registered Aug 18, 2021, 1:49 AM
--	---

Subjects

Pre-analysis plan for
“Populism and the persistence of misinformation: Experimental evidence from Europe”



Background/overview:

Misinformation can distort elections and complicate efforts to address pressing crises from climate change to disease pandemics. These challenges are exacerbated in many countries by populist parties and candidates, who often employ conspiracy theories and other forms of misinformation to attract voters. In this project, we examine when and how misinformation can be effectively corrected in the age of populism. Specifically, we use experiments in Spain and Portugal — countries with similar socioeconomic and cultural characteristics but different levels of elite and mass populism — to study people’s responsiveness to corrective information about a populist and non-populist fake news. Our findings will inform ongoing efforts to correct misinformation by governments, journalists, NGOs, and other important stakeholders.

Note: Translated survey instruments for both studies are attached to this pre-registration.

Hypotheses and research questions:

H1: Fact checks will reduce belief in fake news claims.

H2: Among people with populist predispositions, activating populism will increase belief in populist fake news.

H3: Among people with populist predispositions, activating populism will reduce the effectiveness of fact checks about populist fake news.

We will also consider the following research questions where we have weaker theoretical priors:

RQ1: What are the correlates of fake news belief?

RQ2: Do general warnings or anti-populism warnings decrease belief in false claims?

RQ3: Are expert sources more effective than non-expert sources at reducing fake news belief?

RQ4: Among people with populist predispositions, are non-expert sources more effective than expert sources at reducing belief in false claims?

RQ5: Does activating populism lead to higher levels of negative emotion?

RQ6: Do negative emotions reduce the effectiveness of fact checks?

RQ7: Does pre-existing trust in the source of corrective information enhance the effectiveness of fact checks?

RQ8: Among people with populist predispositions, does activating populism increase belief in non-populist fake news?

RQ9: Among people with populist predispositions, does activating populism reduce the effectiveness of fact checks about non-populist fake news?

Overview of method

We will conduct survey experiments in Spain (study 1) and Portugal (study 2) to examine the effect of populism and corrective information on belief in fake news claims. In both studies, respondents read headlines and brief excerpts from recent fake news stories covering a range of topics. Our experimental treatments --- populism activation and corrective information --- are randomized independently within each story. (We also randomize the source of the fact check in order to test some of the RQs above; see below for more information.) We will examine the effect of fact checks on respondents’ factual beliefs, the effect of activating populism on belief, and the potential moderating effect of populist activation on the effectiveness of fact checks. See the statistical analysis section below for details.

Respondents, data collection, and procedure

In both studies, we will contract with the survey data vendor NetQuest to recruit a sample that resembles the national population on available benchmarks (Spanish benchmarks: sex, age, region, education; Portuguese benchmarks: sex, age, region). In both studies, we recruit the maximum number of respondents possible under the study budget, which is approximately 10,000 in study 1 (Spain) and 3,000 in study 2 (Portugal).

Prior to beginning the study, potential participants will be provided with a description of the survey and reminded that participation in the study is voluntary and that they are free to withdraw at any time. Participants will then be asked to indicate whether or not they agree to participate in the survey. After answering pre-treatment questions about demographics and potential moderating variables, participants will be randomly assigned to read headlines and brief summaries of a series of fake news stories (listed below). Our randomized treatments are contained in these stories.

We randomize three treatment variables: populist rhetoric (designed to activate populist sentiment among respondents with latent populism), a “warning” message (intended to inoculate respondents against subsequent false claims), and exposure to corrective information. The following table presents the treatments included in both studies:

Table 1: Experimental treatments used in study 1 (Spain) and study 2 (Portugal)

	Populism treatments*	Warning treatments	Correction treatments**
Study 1 (Spain)	-No populism activation -Situational populism activation -Dispositional populism activation	-No inoculation -General anti-misinformation inoculation -Anti-populism inoculation	-No correction -Correction
Study 2 (Portugal)	-No populism activation -Dispositional populism activation	-No inoculation -Anti-populism inoculation	-No correction -Correction

*Populism activation is achieved via dispositional blame attribution (see Busby et al. 2019a; 2019b). While we include situational and dispositional attribution treatments for comparison in study 1, the smaller sample size in study 2 requires us to drop non-essential treatments in order to conserve power.

**As mentioned, we also randomize the source of corrections. For purposes of testing our pre-registered hypotheses (H1, H3), we will collapse all correction sources into a single correction dummy.

Here we list the news stories used in both studies. In study 1 (Spain), all respondents read five stories, and in study 2 (Portugal) all respondents read four stories. In both studies, respondents begin with a true story about climate change. Subsequent stories are randomly selected from the categories listed below. In both studies, the order of all stories after the first (climate change) story is randomized.

Study 1 (Spain):

- Story 1: All respondents receive climate change story
- Story 2: Random assignment to one of the following **science-related stories**:
 - Genetically modified foods are unsafe
 - Vaccines increase risk of autism
- Story 3: Random assignment to one of the following **cultural/religious stories**:
 - Replace language classes with religion
 - Mandatory Islamic studies in public schools
- Story 4: Random assignment to one of the following **partisan-related stories**:
 - Left-wing parties' secret pact
 - Right-wing parties' secret pact
- Story 5: Random assignment to one of the following **conspiracy theories**:
 - Medical patent holders restricting supply
 - NATO secret aerial fumigations conspiracy

Study 2 (Portugal 2):

- Story 1: All respondents receive climate change story
- Story 2: Random assignment to one of the following **science-related stories**:
 - Genetically modified foods are unsafe
 - Vaccines increase risk of autism
- Story 3: Random assignment to one of the following **partisan-related stories**:
 - Left-wing parties' secret pact
 - Right-wing parties' secret pact
- Story 4: All respondents receive medical patent holders story

Respondents will receive a full debriefing at the conclusion of the study. NetQuest will not provide any identifiable information to the investigators about the study participants, nor will we ask about any identifying information.

The nature of data to be obtained:

We will collect individual-level survey data, including questions about demographic/political characteristics, political knowledge, trust in various institutions, and factual beliefs.

Dates of administration:

Study 1: The study was made available to respondents on 26 November 2019 and kept in the field until the study budget was exhausted.

Study 2: The study will be made available to respondents on (approximately) 5 February 2021 and kept in the field until the study budget is exhausted.

Eligibility and exclusion criteria for participants:

All residents of Spain (study 1) and Portugal (study 2) age 18 or older are eligible to participate in the study. Participants must be members of the NetQuest panel to be invited to participate.

Primary and secondary outcome measures:

Study 1 (Spain):

As far as you know, how accurate is the statement that human activity is causing extreme weather events to occur more frequently?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that genetically modified foods are unsafe?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that vaccines increase the risk of autism?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the government is considering reducing language classes and replacing them with religious studies?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the government is considering implementing mandatory Islamic studies into the public school curriculum?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that PSOE and Podemos have worked together to limit the debating time of the opposition parties?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that PP and Vox have worked together to limit the debating time of the opposing parties?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the holders of medical patents are restricting supply of life-saving cancer drugs in order to increase prices?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that NATO is using airplanes to conduct secret aerial fumigations in Spain?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

Study 2 (Portugal):

As far as you know, how accurate is the statement that human activity is causing extreme weather events to occur more frequently?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that genetically modified foods are unsafe?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that vaccines increase the risk of autism?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the government is considering reducing language classes and replacing them with religious studies?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the government is considering implementing mandatory Islamic studies into the public school curriculum?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that PPD/PSD and CDS-P [*left-wing parties*] have worked together to limit the debating time of the opposition parties?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that PS and BE [*right-wing parties*] have worked together to limit the debating time of the opposing parties?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the holders of medical patents are restricting supply of life-saving cancer drugs in order to increase prices?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

Statistical analyses of hypotheses and research questions:

All results will be estimated using OLS and verified for robustness using appropriate GLM estimators (see below). All outcome measures are coded such that higher values = greater belief accuracy (though we may reverse-code these for expositional purposes in some cases). To test H1, H2, and H3, we will estimate models of the following form (in pseudo R code). Unless otherwise noted, we will estimate the same models in both studies.

H1: Fact checks will reduce belief in fake news claims.

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs about climate change and the other

claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

H2: Among people with populist predispositions, activating populism will increase belief in populist fake news.

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ populist activation (1 if exposed to dispositional populism treatment, 0 otherwise), subset(respondents in top tercile of sample distribution of pre-treatment populist predispositions)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all populist claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

We will restrict this analysis to the subset of populist news stories listed below. These categorizations were made based on the most consistent operationalization of populism in past research, which focuses on secretive actions by powerful elites that contradict the interests of the general public.

- Study 1 (Spain): left-wing secret pact, right-wing secret pact
- Study 2 (Portugal): left-wing secret pact, right-wing secret pact

H3: Among people with populist predispositions, activating populism will reduce the effectiveness of fact checks about populist fake news.

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 populist activation (1 if receive populist activation treatment, 0 otherwise) + b_3 fact-check exposure*populist activation, subset(respondents in top tercile of sample distribution of pre-treatment populist predispositions)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all populist claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

We will restrict this analysis to the same subset of populist news stories listed above. See above (analysis of H2).

We will also consider the following research questions where we have weaker theoretical priors:

RQ1: What are the correlates of fake news belief?

Claim-specific models:

Belief $\sim b_0 + b_1$ populist predispositions (categorical: bottom tercile, middle tercile, top tercile) + conspiratorial predispositions (categorical: bottom tercile, middle tercile, top tercile) + left-right ideology (1-10, where higher=more conservative) + education (1 if college graduate, 0 otherwise) + heavy social media news consumer (1 if reports getting political

news once daily or more from any of the following sources: Facebook, Twitter, Whatsapp, 0 otherwise) + age (categorical: 18-29, 30-44, 45-59, 60 or above) + sex (1 if male, 0 otherwise) + institutional trust (categorical: bottom tercile, middle tercile, top tercile; continuous score calculated as mean trust in the following institutions: scientists, doctors, politicians in general, the federal government, political parties, media outlets) + political knowledge (categorical: bottom tercile, middle tercile, top tercile)

RQ2: Do general warnings or anti-populism warnings decrease belief in false claims?

Separate (claim-specific) models:

Per Table 1 above, study 1 (Spain) included both inoculation treatments, while study 2 (Portugal) will include only the anti-populist fake news inoculation treatment. We therefore estimate different models across the two studies.

Study 1 (Spain):

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ general inoculation (1 if exposed to general anti-fake news warning treatment, 0 otherwise) + b_2 populism inoculation (1 if exposed to anti-populism warning treatment, 0 otherwise)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

Study 2 (Portugal):

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ populism inoculation (1 if exposed to anti-populism warning treatment, 0 otherwise)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

RQ3: Are expert sources more effective than non-expert sources at reducing fake news belief?

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ expert correction (1 if exposed to correction treatment from expert source, 0 otherwise) + b_2 non-expert correction (1 if exposed to correction treatment from non-expert source, 0 otherwise)

We will conduct a difference-in-coefficients test to examine whether the expert corrections have a more negative effect on belief (b_1) than non-expert corrections (b_2).

We consider the following sources expert and non-expert:

Table 2: Expert and non-expert sources in study 1 (Spain) and study 2 (Portugal)

	News story	Expert correction treatments	Non-expert correction treatments
Study 1 (Spain)	Genetically modified foods are unsafe	Doctors, public health agencies, scientists	
	Vaccines linked to autism	Doctors, public health agencies	Other groups of parents
	Government to replace language classes with religion	Journalists, fact-checking organizations	
	Mandatory Islamic studies in schools	Journalists, fact-checking organizations,	
	Left-wing parties secret pact	Political scholars, parliamentary experts, Civic Association for Democratic Dialogue [fictional]	
	Right-wing parties secret pact	Political scholars, parliamentary experts, Civic Association for Democratic Dialogue [fictional]	
	Medical patent holders restricting supply	Experts, economists, Council of Medical Schools	
	NATO fumigations	Spanish National Meteorological Association (male spokesman), Spanish National Meteorological Association (female spokesman), federal government (male spokesman), federal government (female spokesman), Council of Medical Schools (male spokesman), Council of Medical Schools (female spokesman)	
Study 2 (Portugal)	Genetically modified foods are unsafe	Doctors, public health agencies	
	Vaccines linked to autism	Doctors	Other groups of parents
	Left-wing parties secret pact	Political scholars, Civic Association for Democratic	

		Dialogue [fictional]	
	Right-wing parties secret pact	Political scholars, Civic Association for Democratic Dialogue [fictional]	
	Medical patent holders restricting supply	Experts, economists	Twitter users

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

RQ4: Among people with populist predispositions, are non-expert sources more effective than expert sources at reducing belief in false claims?

We will conduct the same analyses as in RQ3 (above) but limit our sample to respondents in the top tercile of pre-treatment populist predispositions.

RQ5: Does activating populism lead to higher levels of negative emotion?

Study 1 (Spain):

Separate (emotion-specific) models:

Anger ~ $b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Disgust ~ $b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Fear ~ $b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Sadness ~ $b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Overall negative emotions index model:

Average negative emotion (calculated as mean across above listed emotions) ~ $b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Study 2 (Portugal):

Same models as above, but we will omit the b_1 term since situational populism activation was not used in study 2.

RQ6: Do negative emotions reduce the effectiveness of fact checks?

Separate (emotion-specific) models:

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 anger + b_3 fact-check exposure*anger

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 disgust + b_3 fact-check exposure*disgust

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 fear + b_3 fact-check exposure*fear

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 sadness + b_3 fact-check exposure*sadness

Overall negative emotions index model:

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 average negative emotion (calculated as mean across above listed emotions) + b_3 fact-check exposure*average negative emotion

We will also estimate pooled models of the same form, which stack each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

RQ7: Does pre-existing trust in the source of corrective information enhance the effectiveness of fact checks?

We will estimate a series of models that interact fact-check exposure with pre-existing trust in the relevant source listed below. We will estimate separate models for each correction X source interaction.

Table 3: Institutional sources in study 1 (Spain) and study 2 (Portugal)

	News story	Treatment	Relevant pre-treatment trust question
Study 1 (Spain)	Genetically modified foods are unsafe	Doctors..... Public health agencies..... Scientists.....	Doctors Consejo General de Colegios de Médicos Scientists
	Vaccines linked to autism	Doctors Public health agencies	Doctors Consejo General de Colegios de Médicos
	Government to replace language classes with religion	Journalists	Journalists
	Mandatory Islamic studies in schools	Journalists	Journalists

	Left-wing parties secret pact	Political scholars, parliamentary experts, Civic Association for Democratic Dialogue [fictional]	[No test]
	Right-wing parties secret pact	Political scholars, parliamentary experts, Civic Association for Democratic Dialogue [fictional]	[No test]
	Medical patent holders restricting supply	Council of Medical Schools	Consejo General de Colegios de Médicos
	NATO fumigations	Spanish National Meteorological Association [we will collapse both male and female spokespeople into one dummy] Federal government [we will collapse both male and female spokespeople into one dummy] Council of Medical Schools [we will collapse both male and female spokespeople into one dummy]	Scientists Federal government Consejo General de Colegios de Médicos
Study 2 (Portugal)	Genetically modified foods are unsafe	Doctors Public health agencies	Doctors Consejo General de Colegios de Médicos
	Vaccines linked to autism	Doctors	Doctors
	Left-wing parties secret pact	Political scholars, Civic Association for Democratic Dialogue [fictional]	[No test]
	Right-wing parties secret pact	Political scholars, Civic Association for Democratic Dialogue [fictional]	[No test]
	Medical patent holders restricting supply	Twitter users	Interpersonal trust

In both studies, we will also estimate a pooled model of the same form, which stack each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she

was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

RQ8: Among people with populist predispositions, does activating populism increase belief in non-populist fake news?

Study 1 (Spain):

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise), subset(non-populist fake news claims based on the categorizations above)

We will also estimate a pooled model of the same form, which stack each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

Study 2 (Portugal):

Same models as above, but we will omit the b_1 term since situational populism activation was not used in study 2.

R9: Among people with populist predispositions, does activating populism reduce the effectiveness of fact checks about non-populist fake news?

Same models as H3 above but limited to the subset of non-populist fake news stories (based on the categorizations above).

Notes:

- Several of the tests above indicate that we will use tercile categories for relevant pre-treatment moderators (e.g., conspiratorial and populist predispositions). We will verify robustness using a simple median split.
- For interaction terms, scales, and moderators, if results are consistent using a median/tercile split or indicators rather than a continuous scale, we may present the latter in the main text for ease of exposition and include the continuous scale results in an appendix. We will compute all marginal effects appropriate to test the hypotheses of interest from the models described below.
- We will compute and report appropriate auxiliary quantities from our models, including treatment effects by subgroup and differences in marginal effects between subgroups.
- We will compute all marginal effects appropriate to test the hypotheses of interest from any interaction models. In some cases, we may present treatment effects estimated on different subsets of the data for expositional clarity. If so, we will verify that we can reject the null of no difference in treatment effects in a more complex interactive model reported in an appendix when possible.
- We will also compute and report summary statistics for our samples.
- The order of hypotheses and analyses in the final manuscript may be altered for expositional clarity.

-Regression results for individual ordered dependent variables will be verified for robustness using ordered logit.

IRB information:

This project was approved by the IRB at

Power analysis:

N/A (none conducted).

Cooperation/publication agreement:

N/A (none)

References:

Busby, Ethan C., David Doyle, Kirk A. Hawkins and Nina Wiesehomeier (2019b). "Activating populist attitudes: the role of corruption." In:
Kirk A. Hawkins, Ryan E. Carlin, Levente Littvay, Cristóbal Rovira Kaltwasser.
The ideational approach to populism: concept, theory and analysis. Routledge: 374-395.

Busby, Ethan C., Joshua R. Gubler, and Kirk A. Hawkins (2019a). "Framing and Blame Attribution in Populist Rhetoric." *Journal of Politics* 81(2): 616-630.

- Home
- Search OSF
- Support
- My OSF
- Registries
 - Discover
 - Registry Details
 - Overview
 - Metadata
 - Files
 - Resources
 - Wiki
 - Components
 - Contributors
 - Links
 - Analytics
 - Recent Activity
- Preprints
- Meetings

Populism And The Persistence Of Misinformation: Experimental Evidence From Four Countries

Data
 Analytic Code
 Materials
 Papers
 Supplements

Public registration

Updates

General Information About The Study

Title of Study

Populism and the persistence of misinformation: Experimental evidence from four countries

Acknowledgements

No data

Is one of the study authors a university faculty member?

Other (describe in text box below)

Other author affiliation

No data

Is this Registration Prospective or Retrospective?

N/A

Other description of registration timing

Note: this is an extension of a previous pre-registration that covered two studies that are part of the same project (EGAP Registration ID 20210206AB, filed on 6 February 2021). This version contains two additional studies (referred to as studies 3 and 4 below).

Is this an experimental study?

Yes

Date of start of study

26 November 2019

Metadata

Edit

Contributors

Resource Type

No resource type

Description

Misinformation can distort elections and complicate efforts to address pressing crises from climate change to disease pandemics. These challenges are exacerbated in many ...

[Read more](#)

Registration Type

EGAP Registration

Registry

egap Registry

Date Created

Dec 14, 2021, 9:54 AM

Date Registered

Dec 14, 2021, 9:54 AM

Subjects

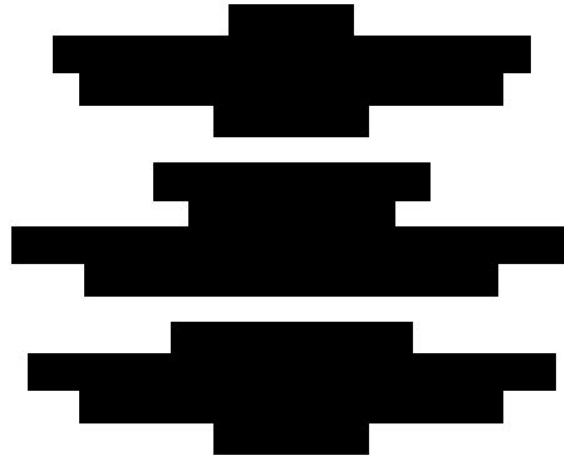
Social and Behavioral Sciences

Political Science

Public Affairs, Public Policy and Public Administration

Help

Pre-analysis plan for “Populism and the persistence of misinformation: Experimental evidence from four countries”



Note: this is an extension of a previous pre-registration that covered two studies that are part of the same project (EGAP Registration ID [REDACTED]). This version contains two additional studies (referred to as studies 3 and 4 below). New text in blue.

Background/overview:

Misinformation can distort elections and complicate efforts to address pressing crises from climate change to disease pandemics. These challenges are exacerbated in many countries by populist parties and candidates, who often employ conspiracy theories and other forms of misinformation to attract voters. In this project, we examine when and how misinformation can be effectively corrected in the age of populism. Specifically, we use experiments in Spain, Portugal, [India, and the United States](#) — countries with different levels of elite and mass populism — to study people's responsiveness to corrective information about populist and non-populist fake news. Our findings will inform ongoing efforts to correct misinformation by governments, journalists, NGOs, and other stakeholders.

Hypotheses and research questions:

H1: Fact checks will reduce belief in fake news claims.

H2: Among people with populist predispositions, activating populism will increase belief in populist fake news.

H3: Among people with populist predispositions, activating populism will reduce the effectiveness of fact checks about populist fake news.

We will also consider the following research questions where we have weaker theoretical priors:

RQ1: What are the correlates of fake news belief?

RQ2: Do general warnings or anti-populism warnings decrease belief in false claims?*

RQ3: Are expert sources more effective than non-expert sources at reducing fake news belief?*

RQ4: Among people with populist predispositions, are non-expert sources more effective than expert sources at reducing belief in false claims?*

RQ5: Does activating populism lead to higher levels of negative emotion?

RQ6: Do negative emotions reduce the effectiveness of fact checks?

RQ7: Does pre-existing trust in the source of corrective information enhance the effectiveness of fact checks?
RQ8: Among people with populist predispositions, does activating populism increase belief in non-populist fake news?
RQ9: Among people with populist predispositions, does activating populism reduce the effectiveness of fact checks about non-populist fake news?

*We have simplified the experimental design in studies 3 (India) and 4 (USA), and, as a result, we will not test RQ3 or RQ4 in those studies. We will test the effects of anti-populist warnings, but not general warnings, in these new studies (RQ2).

Overview of method

We conduct survey experiments in Spain (study 1), Portugal (study 2), India (study 3) and the US (study 4) to study the effects of populism and corrective information on belief in fake news claims. The studies on Spain (study 1) and Portugal (study 2) were completed in 2019, while the surveys on India (study 3) and the US (study 4) will be completed in November/December 2021. In all studies, respondents read headlines and brief excerpts from recent fake news stories covering a range of topics. We then randomize three factors: exposure to an inoculation message, a populism activation message, and corrective information specific to each story. In studies 1 and 2, we also randomize the source of the fact check in order to test some of the RQs above (see below for more information). We will examine the effect of fact checks on respondents' factual beliefs, the effect of activating populism on belief, and the potential moderating effect of populist activation on the effectiveness of fact checks. See the statistical analysis section below for details.

Respondents, data collection, and procedure

For studies 1 (Spain) and 2 (Portugal), we contracted with the survey data vendor NetQuest to recruit a sample that resembles the national population on available benchmarks (Spanish benchmarks: sex, age, region, education; Portuguese benchmarks: sex, age, region). In all studies, we recruited the maximum number of respondents possible under the study budget, which is approximately 10,000 in study 1 (Spain) and 3,000 in study 2 (Portugal). For studies 3 (India) and 4 (USA), we recruit subjects from Amazon.com's Mechanical Turk (MTurk; Berinsky et al. 2012). We again recruit the maximum number of subjects possible under the budget, which is approximately 2960 respondents in both countries.

Prior to beginning the study, potential participants will be provided with a description of the survey and reminded that participation in the study is voluntary and that they are free to withdraw at any time. Participants will then be asked to indicate whether or not they agree to participate in the survey. After answering pre-treatment questions about demographics and potential moderating variables, participants will be randomly assigned to read headlines and brief summaries of a series of fake news stories (listed below). Our randomized treatments are contained in these stories.

We randomize three treatment variables: populist rhetoric (designed to activate populist sentiment among respondents with latent populism), a "warning" message (intended to inoculate respondents against subsequent false claims), and exposure to corrective information. The following table presents the treatments included in all studies:

Table 1: Experimental treatments used in studies 1-4

	Populism treatments*	Warning treatments	Correction treatments**
--	----------------------	--------------------	-------------------------

Study 1 (Spain)	-No populism activation -Situational populism activation -Dispositional populism activation	-No inoculation -General anti-misinformation inoculation -Anti-populism inoculation	-No correction -Correction
Study 2 (Portugal)	-No populism activation -Dispositional populism activation	-No inoculation -Anti-populism inoculation	-No correction -Correction
Study 3 (India)	-No populism activation -Dispositional populism activation	-No inoculation -Anti-populism inoculation	-No correction -Correction
Study 4 (USA)	-No populism activation -Dispositional populism activation	-No inoculation -Anti-populism inoculation	-No correction -Correction

*Populism activation is achieved via dispositional blame attribution (see Busby et al. 2019a; 2019b). While we include situational and dispositional attribution treatments for comparison in study 1, the smaller sample sizes in [studies 2-4](#) require us to drop non-essential treatments in order to conserve power.

**As mentioned, we also randomize the source of corrections. For purposes of testing our pre-registered hypotheses (H1, H3), we will collapse all correction sources into a single correction dummy. [Note: this does not apply to studies 3 \(India\) and 4 \(US\), where we do not randomize correction sources.](#)

Here we list the news stories used in all studies. In study 1 (Spain), all respondents read five stories, in study 2 (Portugal) all respondents read four stories, [in study 3 \(India\) all respondents read six stories and in study 4 \(the US\) all respondents read six stories.](#) In all studies, respondents begin with a true story about climate change. Subsequent stories are randomly selected from the categories listed below. In all studies, the order of all stories after the first (climate change) story is randomized.

Study 1 (Spain):

- Story 1: All respondents receive climate change story
- Story 2: Random assignment to one of the following **science-related stories**:
 - Genetically modified foods are unsafe
 - Vaccines increase risk of autism
- Story 3: Random assignment to one of the following **cultural/religious stories**:
 - Replace language classes with religion
 - Mandatory Islamic studies in public schools
- Story 4: Random assignment to one of the following **partisan-related stories**:
 - Left-wing parties' secret pact
 - Right-wing parties' secret pact
- Story 5: Random assignment to one of the following **conspiracy theories**:
 - Medical patent holders restricting supply
 - NATO secret aerial fumigations conspiracy

Study 2 (Portugal 2):

- Story 1: All respondents receive climate change story
- Story 2: Random assignment to one of the following **science-related stories**:
 - Genetically modified foods are unsafe
 - Vaccines increase risk of autism
- Story 3: Random assignment to one of the following **partisan-related stories**:
 - Left-wing parties' secret pact
 - Right-wing parties' secret pact
- Story 4: All respondents receive medical patent holders story

We include the following claims in the two new studies (studies 3 and 4) being added to this version of the pre-registration. While we strove to maximize similarity between categories in the previous studies, after consulting with country experts we discovered that some categories were not as meaningful or credible in India and the US. We therefore settled on the following claims:

Study 3 (India):

- Story 1: All respondents receive climate change story
- Stories 2 and 3: Random assignment to two of the following **science-related stories**:
 - Vaccines increase risk of autism
 - COVID vaccine serious side effects
 - Coronavirus testing swabs plant substances in the brain
- Story 4: Random assignment to one of the following **religion-related stories**:
 - State of Rajasthan passed new law establishing penalties for blocking mosque/madrassa construction
 - Islamic studies an optional subject on UPSC exam
- Story 5: Random assignment to one of the following **conspiracy theories (which are highly similar)**:
 - Medical patent holders restricting supply
 - Hospitals restricting supply of oxygen tanks
- Story 6: Random assignment to one of the following **conspiracy theories**:
 - International elites releasing COVID variants
 - Government paying rent in MPs' private homes

Study 4 (USA):

- Story 1: All respondents receive climate change story
- Stories 2 and 3: Random assignment to two of the following **science-related stories**:
 - Genetically modified foods are unsafe
 - Vaccines increase risk of autism
 - COVID vaccine serious side effects
 - Coronavirus testing swabs plant substances in the brain
- Story 4: Random assignment to one of the following **partisan-related stories**:
 - Democrats lie about voting laws
 - Republicans lie about voting laws
- Stories 5 and 6: all respondents receive:
 - Medical patent holders restricting supply
 - International elites releasing COVID variants

In all studies, respondents will receive a full debriefing at the conclusion of the study.

The nature of data to be obtained:

We will collect individual-level survey data, including questions about demographic/political characteristics, political knowledge, trust in various institutions, and factual beliefs.

Dates of administration:

Study 1: The study was made available to respondents on 26 November 2019 and kept in the field until the study budget was exhausted.

Study 2: The study was made available to respondents on (approximately) 5 February 2021 and kept in the field until the study budget is exhausted.

Study 3: The study will be made available to respondents on (approximately) 15 December 2021 and kept in the field until the study budget is exhausted.

Study 4: The study will be made available to respondents on (approximately) 15 December 2021 and kept in the field until the study budget is exhausted.

Eligibility and exclusion criteria for participants:

All residents of Spain (study 1) and Portugal (study 2) age 18 or older are eligible to participate in the study. Participants must be members of the NetQuest panel to be invited to participate.

All residents of India (study 3) and the US (study 4) age 18 or older are eligible to participate in the study. Participants must have MTurk "worker" accounts in order to participate. Both studies 3 and 4 are offered in English.

Primary and secondary outcome measures:

Study 1 (Spain):

As far as you know, how accurate is the statement that human activity is causing extreme weather events to occur more frequently?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that genetically modified foods are unsafe?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that vaccines increase the risk of autism?

- Totally accurate
- Very accurate
- Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that the government is considering reducing language classes and replacing them with religious studies?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that the government is considering implementing mandatory Islamic studies into the public school curriculum?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that PSOE and Podemos have worked together to limit the debating time of the opposition parties?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that PP and Vox have worked together to limit the debating time of the opposing parties?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that the holders of medical patents are restricting supply of life-saving cancer drugs in order to increase prices?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that NATO is using airplanes to conduct secret aerial fumigations in Spain?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

Study 2 (Portugal):

As far as you know, how accurate is the statement that human activity is causing extreme weather events to occur more frequently?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that genetically modified foods are unsafe?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that vaccines increase the risk of autism?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the government is considering reducing language classes and replacing them with religious studies?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the government is considering implementing mandatory Islamic studies into the public school curriculum?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that PPD/PSD and CDS-P *[left-wing parties]* have worked together to limit the debating time of the opposition parties?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that PS and BE *[right-wing parties]* have worked together to limit the debating time of the opposing parties?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the holders of medical patents are restricting supply of life-saving cancer drugs in order to increase prices?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

Study 3 (India):

As far as you know, how accurate is the statement that human activity is causing extreme weather events to occur more frequently?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the MMR vaccine is linked to autism?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that Covid-19 vaccines cause serious side effects?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that Covid-19 nasal swabs implant tracking devices in the brain?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the Rajasthan government implemented new penalties against people who block the construction of mosques and madrasas?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that Islamic Studies is an optional subject for the UPSC exam?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the holders of medical patents are restricting supply of life-saving cancer drugs in order to increase prices?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that hospital managers are restricting supply of oxygen tanks in order to increase prices?

- Totally accurate
- Very accurate
- Not very accurate

As far as you know, how accurate is the statement that an international group of powerful people and institutions is working together to release new COVID variants?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the government pays the rent of the private home of Rajya Sabha MP Chidambaram?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

Study 4 (USA):

As far as you know, how accurate is the statement that human activity is causing extreme weather events to occur more frequently?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that genetically modified foods are unsafe?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the MMR vaccine is linked to autism?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that Covid-19 vaccines cause serious side effects?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that Covid-19 nasal swabs implant tracking devices in the brain?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the Georgia election reform law mandates poll closures at 5pm on Election Day?

- Totally accurate
- Very accurate
- Not very accurate
- Not at all accurate

As far as you know, how accurate is the statement that the Democratic election reform bill would allow illegal immigrants to vote?

- Totally accurate
- Very accurate
- Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that the holders of medical patents are restricting supply of life-saving cancer drugs in order to increase prices?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

As far as you know, how accurate is the statement that an international group of powerful people and institutions is working together to release new COVID variants?

-Totally accurate

-Very accurate

-Not very accurate

-Not at all accurate

Statistical analyses of hypotheses and research questions:

All results will be estimated using OLS and verified for robustness using appropriate GLM estimators (see below). All outcome measures are coded such that higher values = greater belief accuracy (though we may reverse-code these for expositional purposes in some cases). To test H1, H2, and H3, we will estimate models of the following form (in pseudo R code). Unless otherwise noted, we will estimate the same models in all studies.

H1: Fact checks will reduce belief in fake news claims.

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs about climate change and the other claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

H2: Among people with populist predispositions, activating populism will increase belief in populist fake news.

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ populist activation (1 if exposed to dispositional populism treatment, 0 otherwise), subset(respondents in top tercile of sample distribution of pre-treatment populist predispositions)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all populist claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

We will restrict this analysis to the subset of populist news stories listed below. These categorizations were made based on the most consistent operationalization of populism in past research, which focuses on secretive actions by powerful political elites that contradict the interests of the general public.

- Study 1 (Spain): left-wing secret pact, right-wing secret pact

- Study 2 (Portugal): left-wing secret pact, right-wing secret pact
- Study 3 (India): Islamic studies on UPSC exam, new law establishing penalties for blocking mosque/madrassa construction, government paying MPs' rent
- Study 4 (the US): Democrats lie about election law, Republicans lie about election law

H3: Among people with populist predispositions, activating populism will reduce the effectiveness of fact checks about populist fake news.

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 populist activation (1 if receive populist activation treatment, 0 otherwise) + b_3 fact-check exposure*populist activation, subset(respondents in top tercile of sample distribution of pre-treatment populist predispositions)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all populist claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

We will restrict this analysis to the same subset of populist news stories listed above. See above (analysis of H2).

We will also consider the following research questions where we have weaker theoretical priors:

RQ1: What are the correlates of fake news belief?

Claim-specific models:

Belief $\sim b_0 + b_1$ populist predispositions (categorical: bottom tercile, middle tercile, top tercile) + conspiratorial predispositions (categorical: bottom tercile, middle tercile, top tercile) + left-right ideology (1-10, where higher=more conservative) + education (1 if college graduate, 0 otherwise) + heavy social media news consumer (1 if reports getting political news once daily or more from any of the following sources: Facebook, Twitter, Whatsapp, 0 otherwise) + age (categorical: 18-29, 30-44, 45-59, 60 or above) + sex (1 if male, 0 otherwise) + institutional trust (categorical: bottom tercile, middle tercile, top tercile; continuous score calculated as mean trust in the following institutions: scientists, doctors, politicians in general, the federal government, political parties, media outlets) + political knowledge (categorical: bottom tercile, middle tercile, top tercile)

RQ2: Do general warnings or anti-populism warnings decrease belief in false claims?

Separate (claim-specific) models:

Per Table 1 above, study 1 (Spain) included both inoculation treatments, while studies 2-4 include only the anti-populist fake news inoculation treatment. We therefore estimate different models across studies.

Study 1 (Spain):

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ general inoculation (1 if exposed to general anti-fake news warning treatment, 0 otherwise) + b_2 populism inoculation (1 if exposed to anti-populism warning treatment, 0 otherwise)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

Studies 2-4:

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ populism inoculation (1 if exposed to anti-populism warning treatment, 0 otherwise)

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

RQ3: Are expert sources more effective than non-expert sources at reducing fake news belief?

Studies 1 and 2 only:

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ expert correction (1 if exposed to correction treatment from expert source, 0 otherwise) + b_2 non-expert correction (1 if exposed to correction treatment from non-expert source, 0 otherwise)

We will conduct a difference-in-coefficients test to examine whether the expert corrections have a more negative effect on belief (b_1) than non-expert corrections (b_2).

We consider the following sources expert and non-expert:

Table 2: Expert and non-expert sources in study 1 (Spain) and study 2 (Portugal)

	News story	Expert correction treatments	Non-expert correction treatments
Study 1 (Spain)	Genetically modified foods are unsafe	Doctors, public health agencies, scientists	
	Vaccines linked to autism	Doctors, public health agencies	Other groups of parents
	Government to replace language classes with religion	Journalists, fact-checking organizations	
	Mandatory Islamic studies in schools	Journalists, fact-checking organizations,	

	Left-wing parties secret pact	Political scholars, parliamentary experts, Civic Association for Democratic Dialogue [fictional]	
	Right-wing parties secret pact	Political scholars, parliamentary experts, Civic Association for Democratic Dialogue [fictional]	
	Medical patent holders restricting supply	Experts, economists, Council of Medical Schools	
	NATO fumigations	Spanish National Meteorological Association (male spokesman), Spanish National Meteorological Association (female spokesman), federal government (male spokesman), federal government (female spokesman), Council of Medical Schools (male spokesman), Council of Medical Schools (female spokesman)	
Study 2 (Portugal)	Genetically modified foods are unsafe	Doctors, public health agencies	
	Vaccines linked to autism	Doctors	Other groups of parents
	Left-wing parties secret pact	Political scholars, Civic Association for Democratic Dialogue [fictional]	
	Right-wing parties secret pact	Political scholars, Civic Association for Democratic Dialogue [fictional]	
	Medical patent holders restricting supply	Experts, economists	Twitter users

We will also estimate a pooled model of the same form, which stacks each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

RQ4: Among people with populist predispositions, are non-expert sources more effective than expert sources at reducing belief in false claims?

We will conduct the same analyses as in RQ3 (above) but limit our sample to respondents in the top tercile of pre-treatment populist predispositions.

RQ5: Does activating populism lead to higher levels of negative emotion?

Study 1 (Spain):

Separate (emotion-specific) models:

Anger $\sim b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Disgust $\sim b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Fear $\sim b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Sadness $\sim b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Overall negative emotions index model:

Average negative emotion (calculated as mean across above listed emotions) $\sim b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise)

Studies 2-4:

Same models as above, but we will omit the b_1 term since situational populism activation was not used in [these studies](#).

RQ6: Do negative emotions reduce the effectiveness of fact checks?

Separate (emotion-specific) models:

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 anger + b_3 fact-check exposure*anger

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 disgust + b_3 fact-check exposure*disgust

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 fear + b_3 fact-check exposure*fear

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 sadness + b_3 fact-check exposure*sadness

Overall negative emotions index model:

Belief $\sim b_0 + b_1$ fact-check exposure (1 if receive a fact check, 0 otherwise) + b_2 average negative emotion (calculated as mean across above listed emotions) + b_3 fact-check exposure*average negative emotion

We will also estimate pooled models of the same form, which stack each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which

he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

RQ7: Does pre-existing trust in the source of corrective information enhance the effectiveness of fact checks?

We will estimate a series of models that interact fact-check exposure with pre-existing trust in the relevant source listed below. We will estimate separate models for each correction X source interaction.

Table 3: Institutional sources in study 1 (Spain) and study 2 (Portugal)

	News story	Source of fact check used in treatment	Relevant pre-treatment trust question
Study 1 (Spain)	Genetically modified foods are unsafe	Doctors..... Public health agencies..... Scientists.....	Doctors Consejo General de Colegios de Médicos Scientists
	Vaccines linked to autism	Doctors Public health agencies	Doctors Consejo General de Colegios de Médicos
	Government to replace language classes with religion	Journalists	Journalists
	Mandatory Islamic studies in schools	Journalists	Journalists
	Left-wing parties secret pact	Political scholars, parliamentary experts, Civic Association for Democratic Dialogue [fictional]	[No test]
	Right-wing parties secret pact	Political scholars, parliamentary experts, Civic Association for Democratic Dialogue [fictional]	[No test]
	Medical patent holders restricting supply	Council of Medical Schools	Consejo General de Colegios de Médicos
	NATO fumigations	Spanish National Meteorological Association [we will collapse both male and female spokespeople into one dummy] Federal government [we will collapse both male and female spokespeople into one dummy]	Scientists Federal government

		Council of Medical Schools [we will collapse both male and female spokespeople into one dummy]	Consejo General de Colegios de Médicos
Study 2 (Portugal)	Genetically modified foods are unsafe	Doctors Public health agencies	Doctors Consejo General de Colegios de Médicos
	Vaccines linked to autism	Doctors	Doctors
	Left-wing parties secret pact	Political scholars, Civic Association for Democratic Dialogue [fictional]	[No test]
	Right-wing parties secret pact	Political scholars, Civic Association for Democratic Dialogue [fictional]	[No test]
	Medical patent holders restricting supply	Twitter users	Interpersonal trust
Study 3 (India)	MMR vaccine linked to autism	Scientific research	Scientists
	Covid-19 vaccines serious side effects	"Scientific research and public health guidance"	Scientists World Health Organization
	Nasal swabs implanting tracking devices	Fact checkers	Fact checkers
	New penalties for blocking mosque/madrassa construction	Fact checking organization	Fact checkers
	Islamic studies an optional subject	Education professor	University professors
	Medical patent holders restricting supply	Economists	Economists
	Hospitals restricting oxygen supply	Investigative journalists	Journalists
	Global cabal	Fact checkers	Fact checkers

	releasing covid-19 variants		
	Government paying MPs' rent	Fact-checking organization	Fact checkers
Study 4 (USA)	Genetically modified foods are unsafe	Scientific studies	Scientists
	MMR vaccine linked to autism	Scientific research	Scientists
	Covid-19 vaccines serious side effects	"Scientific research and government recommendations"	Scientists Public health officials (e.g., FDA, CDC)
	Nasal swabs implanting tracking devices	Fact-checking organizations	Fact checkers
	Biden lies about election law	Election law professor	University professors
	GOP Chair lies about election law	Election law professor	University professors
	Medical patent holders restricting supply	Economists	Economists
	Global cabal releasing covid-19 variants	Fact checkers	Fact checkers

In all studies, we will also estimate a pooled model of the same form, which stack each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

RQ8: Among people with populist predispositions, does activating populism increase belief in non-populist fake news?

Study 1 (Spain):

Separate (claim-specific) models:

Belief $\sim b_0 + b_1$ situational populism activation (1 if exposed, 0 otherwise) + b_2 dispositional populism activation (1 if exposed, 0 otherwise), subset(non-populist fake news claims based on the categorizations above)

We will also estimate a pooled model of the same form, which stack each respondent's outcomes separately (e.g., respondent #1's beliefs in all claims to which he/she was exposed). These models will include respondent fixed effects and clustered standard errors at the respondent level.

Studies 2-4:

Same models as above, but we will omit the b1 term since situational populism activation was not used in these studies.

RQ9: Among people with populist predispositions, does activating populism reduce the effectiveness of fact checks about non-populist fake news?

Same models as H3 above but limited to the subset of non-populist fake news stories (based on the categorizations above).

Notes:

- Several of the tests above indicate that we will use tercile categories for relevant pre-treatment moderators (e.g., conspiratorial and populist predispositions). We will verify robustness using a simple median split.
- For interaction terms, scales, and moderators, if results are consistent using a median/tercile split or indicators rather than a continuous scale, we may present the latter in the main text for ease of exposition and include the continuous scale results in an appendix. We will compute all marginal effects appropriate to test the hypotheses of interest from the models described below.
- We will compute and report appropriate auxiliary quantities from our models, including treatment effects by subgroup and differences in marginal effects between subgroups.
- We will compute all marginal effects appropriate to test the hypotheses of interest from any interaction models. In some cases, we may present treatment effects estimated on different subsets of the data for expositional clarity. If so, we will verify that we can reject the null of no difference in treatment effects in a more complex interactive model reported in an appendix when possible.
- We will also compute and report summary statistics for our samples.
- The order of hypotheses and analyses in the final manuscript may be altered for expositional clarity.
- Regression results for individual ordered dependent variables will be verified for robustness using ordered logit.

IRB information:

This project was approved by the IRB at [REDACTED]. An amendment including studies 3 and 4 was approved by the same IRB ([REDACTED]).

Power analysis:

N/A (none conducted).

Cooperation/publication agreement:

Studies 1 and 2 were funded by a social research grant from [REDACTED]. Studies 3 and 4 were funded by a collaboration grant from [REDACTED]. Neither [REDACTED] nor [REDACTED] had input into the design or execution of the research.

References:

Berinsky, A., Huber, G., & Lenz, G. (2012). "Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk." *Political Analysis*, 20(3), 351-368.

Busby, Ethan C., David Doyle, Kirk A. Hawkins and Nina Wiesehomeier (2019b). "Activating populist attitudes: the role of corruption." In:
Kirk A. Hawkins, Ryan E. Carlin, Levente Littvay, Cristóbal Rovira Kaltwasser.
The ideational approach to populism: concept, theory and analysis. Routledge: 374-395.

Busby, Ethan C., Joshua R. Gubler, and Kirk A. Hawkins (2019a). "Framing and Blame Attribution in Populist Rhetoric." *Journal of Politics* 81(2): 616-630.