Article

Do Populists Listen to Expertise? A Five-Country Study of Authority, Arguments, and Expert Sources

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Abstract

Across diverse policy domains, there is broad concern about whether trust in science and expertise has eroded during the past decade. Using quota-based surveys with over 7,500 respondents across five countries and preregistered vignette experiments, we investigate what persuades populists and non-populists to accept expert advice. We find first that populism is associated with less willingness to accept expert advice, yet with variation between countries and topics. Second, we find both populists and non-populists are similarly impacted by stronger arguments. Finally, we show that populists are more likely to judge advice as poorly reasoned and perceive it as politically biased. A mediation analysis showed that the relationship between populism and advice acceptance was nearly completely mediated by these judgments. Our study indicates that populists not only listen to expertise but also respond to the same qualities of expert advice as others, even if their skepticism is higher.

Introduction

Even before the Covid-19 pandemic, a theme in Western democracies was whether people had turned their backs on science and knowledge in favor of politically motivated approaches to expertise (see, e.g. Norris and Inglehart, 2016). Scientific issues related to gender, climate, and health became focal points for heated political discussions. Concerns were expressed whether we had entered a "Post-Truth" era where people stopped

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listening to reason. Before finding any answers, the world was thrust into a pandemic which would provoke even more social resistance and distrust.

Several strands of research have sought to understand who is most likely to exhibit skepticism toward scientific expertise, focusing in particular on identifying individual values or dispositions. This scholarship pointed to technocratic attitudes (Bertsou and Caramani, 2022), a distaste of scientific communities (Mann and Schleifer, 2020), or underlying populist attitudes (Eberl et al., 2021; Huber et al., 2022) as key explanations.

Building on extant research, we focus here specifically on populist attitudes. Though primarily targeting government, these attitudes may be broadly related to distrust in societal and scientific institutions (Eberl et al., 2023), likely due to the anti-elitism facet, which has been consistently associated with less trust in societal institutions (Castanho Silva et al., 2020; Erisen et al., 2021; Wuttke et al., 2020) Previous research has contrasted technocratic and populist forms of representation (Caramani, 2017), where the former emphasizes expert guidance and management, and the latter responsiveness to the will of the people. Despite this apparent conflict in visions, populist attitudes have been found to be associated with preference for expertise in governance (Bertsou and Caramani, 2022). Aside from the class of technocratic voters, populist voters have the greatest preference for "expert problem-solving" (Bertsou and Caramani, 2022: 14) according to this research. This combination of seemingly contradictory associations makes populist attitudes especially worthy to focus on, particularly given the rise of populist parties around the world.

We make several contributions to understanding skepticism toward expert authorities generally and the role of populist attitudes more specifically. First, we focus on the acceptance of advice coming from authorities in specific situations. Studies often examine expert skepticism using general measures of distrust toward categories of authorities such as scientists, politicians, or journalists. While these measures allow respondents to express broad forms of skepticism, such expressions are relatively "free" and do not necessarily imply that people are ready to ignore expertise in their decisions. People are typically confronted with expertise in the form of concrete, actionable advice from a specific expert, pertaining to a specific problem, such as doctor's advice regarding a medical treatment. Following the ancient Roman idea that authority is a type of "advice which one may not safely ignore" (cited in Arendt and Kohn, 2006 [1961]: 122), this article focuses on the degree to which individuals are willing to follow expert advice in such concrete situations. Specifically, we ask: when are those skeptical of experts in general, willing to listen to issue-specific expert advice?

Second, to understand what can make populists listen to expert advice, we focus on key factors that prior research suggests could impact the persuasiveness of advice. We focus on (a) who the ultimate authority is and whether the expert authority is perceived to be independent of government, as research indicates that independent expert sources are more likely accepted as authoritative than those identified with politics or governmental institutions (Bertsou, 2022), (b) the strength of the arguments presented by expert authorities (e.g. Petty et al., 1981), and (c) the nature of the problem that an individual is facing (e.g. medical vs political).

To examine if these factors influence acceptance of expert advice, we use large, preregistered, approximately representative surveys (N ≈ 7,500 respondents) across five countries: the United States, the United Kingdom, the Netherlands, Denmark, and the Czech Republic. We begin our analysis with an overview of how populism is related to measures of trust for different societal authorities and how it is related to attitudes about the role of experts in society. This provides a background to the experimental results which follow. We use vignette experiments to recreate realistic situations where individuals decide whether to

accept expert advice. Our respondents evaluate four vignettes, where we vary the underlying issue, the advice, the expert source, and the quality of the argument.

We find that individuals who score higher on populist attitudes are more reluctant to accept advice from experts. Importantly, however, we find no significant difference between populists and non-populists in how they respond to argument quality or the source of advice. Most of all, both groups are more likely to accept advice if the argument is strong. In exploratory analyses, we try to explain why populists are less likely to trust authorities but respond similarly to our treatments. We find that populists are more critical of the quality of the arguments and are more likely to perceive political bias. A statistical mediation analysis indicates that these judgments nearly fully mediate the impact of populist attitudes on acceptance of expertise. As such, the our overall finding is that populism does not seem to involve a general rejection of expert authorities, but rather, a higher standard, with greater levels of skepticism.

Acceptance of Expert Authority

The status of expertise in society can be analyzed through different conceptual lenses. Some concern the broader perceptions of science in society while others focus more on citizens' trust in expert institutions, such as health or environmental agencies. Classic approaches in political science focus on diffuse measures of system support, such as legitimacy or trust in institutions. In contrast, we use the *acceptance of advice* from expert authorities as the key concept and effectively the main dependent variable. Unlike legitimacy or trust, this measure is more directly tied to action and constitutes a higher threshold of acceptance in real-life situations.

The approach is based on a modernized version of Weber's (1978 [1922]: 212) seminal definition, that authority is ". . . the probability that certain specific commands (. . .) will be obeyed by a given group of persons." The definition focuses on lay perceptions, not on who the authorities are. It ties acceptance to specific "commands" rather than submission in general. This has recently been applied to perceptions of whose professional advice is necessary to follow when faced with problems relating to their expertise (Harrits and Larsen, 2021). For example, medical authority depends on patients viewing medical problems as sufficiently serious or complex that ignoring medical advice would be risky. In other contexts, however, people may feel entirely "safe" going against expertise.

Our approach relates to other research on following expert advice. Philipp-Muller et al. (2022) show that attitudes toward expertise depend on the source, its quality, the recipient, and the format of delivery. Taken together, these factors matter for the pursuit of different (informational) goals (Kunda, 1990). People are generally not particularly gullible and use epistemic "vigilance" to form correct beliefs about the world (Mercier, 2020). However, while people seek useful information, this may sometimes be truthful and sometimes not (Boyer, 2018). This is a difficulty faced by everyone when making decisions which rely on others. To get reliable information, people need to confront the source and the quality of the arguments (Mercier and Sperber, 2017). We should thus not automatically set acceptance as the default behavior.

Populism and Acceptance of Expertise

The existing literature on populism provides useful starting points for understanding how negative perceptions of elites may translate into rejections of expert advice. Negative evaluations of expert advice can be activated by exposure to cues

such as anti-elite narratives (Bos et al., 2020; Hameleers and Van der Meer, 2021), emotionalized blame attribution (Hameleers et al., 2017), or the framing of elites as "abusing the system for their own gain" (Busby et al., 2019: 618). These effects appear particularly potent among the public with pre-existing negative perception of scientists (Hameleers and Van der Meer, 2021).

Populism and Elites

Instead of studying the effects of populist messaging, our analysis focuses on the demand side of populism, those with populist attitudes—individuals who may be harder to persuade. Populism has been defined as an "ideology that considers society to be ultimately separated into two homogeneous and antagonistic groups, 'the pure people' versus the 'corrupt elite,'" (Mudde, 2007: 23). This represents a thin-centered ideology which necessarily combines with other ideologies (Mudde, 2004) and makes populist ideologies highly context dependent. Populist individuals may pursue inclusive, egalitarian, left-wing goals or exclusionary, nationalist, right-wing goals (Akkerman et al., 2014).

Although populism represents a response to the perceived "corrupt elite," relationships between populist anti-elitism and trust are not straightforward. Intrinsically, populism is related to *political* (dis)trust, yet the two are fundamentally different constructs (Geurkink et al., 2020). Therefore, political distrust is only inconsistently associated with populist party support (Rooduijn, 2018). While research has found relationships between populism and various forms of anti-elite sentiment, the empirical focus has been mostly limited to distrust of the ruling government (Castanho Silva et al., 2020; Erisen et al., 2021; Wuttke et al., 2020). Although several studies have shown populists to distrust experts and science (e.g. Eberl et al., 2023; Huber et al., 2022), others have demonstrated them valuing expertise and competence in decision-making, similar to citizens with technocratic preferences (Bertsou and Caramani, 2022). While we know that issue-relevant experts can be subjected to populist targeting, for example, in relation to climate change and Covid-19, we do not know whether populist distrust in experts is general or issue-specific (Castanho Silva et al., 2020).

Whether experts and related actors are the target of populist and anti-elitist attitudes is difficult to determine partially because of the items used to measure them: general statements measuring anti-elitism often do not specify who the elite is, and specific populism items generally narrow it down to political elites. In fact, some scholars propose to distinguish two modes of anti-elitism through which populism operates: distrust of political institutions and distrust of science (Huber et al., 2022). It is noteworthy that while not in power or campaigning, populist parties tend to target political actors as the evil or corrupt elite (Rooduijn, 2014). While governing, however, other actors might become the targets of anti-elite calls, for example, the media (in the USA), academics (in Hungary), or sexual minorities (in Poland) (Jungkunz et al., 2021). Evidence from Poland and Hungary also shows that the expected patterns of populist attitudes (i.e. low trust in the national institutions) do not match the attitudes of the voters of winning populist parties. In these countries, these voters vary in the extent of anti-elitism (e.g. Fidesz voters endorse the rule by businesses and experts to the same extent as voters of other parties) and seem to have a common distinct target of anti-elitism, namely European institutions (Krekó, 2021). The wide range of targets of anti-elitist attitudes make it unclear when they extend to knowledge authorities, especially given the associations between populism and technocratic attitudes (Bertsou and Caramani, 2022).

Populist desire for and simultaneous distrust in expertise could be explained by different factors. Although populist and technocratic citizens share support for expertise in decision-making, they may value different experts. The existing experts may have simply not gained their trust. Alternatively, perhaps populists set the bar higher, or they have a lower level of dispositional trust. As argued above, there is a difference between indicating one's level of trust and accepting concrete advice. The latter comes in a fuller context where the expert may persuade you. In the abstract with little messaging or context, populists may be more distrustful, yet their technocratic side indicates they would be trusting in *some* situations.

For example, as the recent study by Bergan et al. (2022) illustrates, in times of expert consensus, even populists with high levels of pre-existing expert distrust can be persuaded by expert cues. This finding aligns with studies demonstrating that expert agreement alters the acceptance of issued advice (Lewandowsky et al., 2013; Van der Linden et al., 2019). While we cannot change the environment our respondents are coming from, we can provide a more concrete situation where we manipulate elements which influence trust and acceptance. Although we believe how individuals respond in these scenarios represents something different than simply expressing distrust in expert groups, we expect the general tendency among populist respondents is less advice acceptance. This general tendency would be close to the abstract—all else equal—case. Therefore, we hypothesize that *higher levels of populism are associated with less acceptance of expert advice (H1).*

Beyond the general tendency, specific elements of our vignettes could impact levels of trust—among populists and non-populists alike. Specifically, we focus on two elements: expert cues and argument quality. While populists tend to be more distrustful than non-populists (e.g. Eberl et al., 2023), expert messaging can impact their positions (Bergan et al., 2022)—although we would expect expert cues to generally have a smaller effect on them. Similarly, as our populist scale primarily targets government elites (Castanho Silva et al., 2020), we expect the independence of the experts to be more important for populists. Finally, as a main facet of populism is anti-elitism, we expect the quality of the argument supporting the advice to be especially important in determining populists' acceptance of advice. We elaborate on these points below.

Seeing Experts as Independent or as Elites

Skepticism of expert advice may be triggered when different elites are perceived as being too closely connected, and if experts or scientists are seen as being aligned with or dependent on the government and political elites (e.g. see the study of populist attitudes and climate science by Huber et al., 2022). Naturally, governments draw on the expertise of scientists and other technocratic bodies to develop, explain or legitimize policies, as was very visible during the pandemic, blending scientific and political authority in the public eye. While one recent study showed that citizens have a clear preference for involving *independent* experts in policy-making, especially for more complex issues (Bertsou, 2022), independence does not always increase acceptance of authority, as individuals may view independent experts as aloof or in direct opposition to the people. For example, one study found that some conservative groups broadly trust science, but express deep distrust of scientists and scientific communities—indicating that they perceive experts as representing values besides pure science (Mann and Schleifer, 2020). Establishing what constitutes a credible independent source of expertise is not straightforward. If advice is perceived to be politically motivated, individuals may more easily write it off.

Following these arguments, we first formulate a set of hypotheses about the general effects of different expert sources, and subsequently we hypothesize how populist attitudes may alter these effects. In general, we hypothesize that *acceptance of advice is higher when supported with an additional expert source compared to no additional expert source (H2)*. Furthermore, given the importance of the independence of expertise, we hypothesize that *acceptance of advice is higher if that additional expert source is independent, rather than affiliated with the government (H3)*.

As populism is associated with institutional distrust, populists may react less strongly to expert sources because they might associate the experts with elites rather than with expertise itself (Mann and Schleifer, 2020). Therefore, we hypothesize that *acceptance levels among those scoring higher in populism will be less impacted by an expert source (H4)*. To the extent populists *are* influenced by expert sources, we expect them to care more about the independence of the source than non-populists. Although it may be related to many forms of trust, populism (and its measurement) is focused most specifically on *political* distrust (Castanho Silva et al., 2020). Hence, we hypothesize *the independence of an expert source will have a greater impact on acceptance levels among those scoring higher in populism (H5)*.

Quality of Information

When pursuing accuracy goals, credible and high-quality information is of crucial importance. Especially when wrong information can have disastrous consequences, people should pay attention to the quality of arguments presented (Mercier and Sperber). Despite the narrative of a post-truth society (Iyengar and Massey, 2019), during the Covid-19 pandemic, citizens turned overwhelmingly to reliable sources of information (Altay et al., 2022). Especially when distrusting the source of information, claims supported by stronger arguments should be more convincing (Mercier and Sperber, 2017). Subsequently, we hypothesize that *acceptance of advice is higher when supported with a stronger vs weaker argument (H6a)* and that *respondents will adjust their future trust levels toward expert authorities either up or down depending on whether the argument they receive is stronger or weaker (H6b)*.

Although populists are distrustful of authorities, we expect them to still be persuaded by good quality arguments. In fact, we may see that argument quality is especially important to them, in line with the above argumentation. Hence, we hypothesize that *the impact of the quality of an argument on acceptance of advice and future trust levels in the expert authorities behind the advice will be greater among those who have higher levels of populism (H7a and H7b)*.[1]

Methods

Data Source

We obtained ethical approval for our data collection on 31 May, 2022 from the Research Ethics Committee at Aarhus University's School of Business and Social Sciences. To increase the generalizability of our findings, we launched surveys in five countries: the United States, the United Kingdom, Denmark, the Czech Republic, and the Netherlands. These were not selected to evaluate country differences, but to have sufficient variation

to test our general claims on populism and expertise. Fundamental here is whether scientific and professional elites have been traditionally organized in close proximity to the state (DK, CZ), or in relatively autonomous scientific societies (UK, US, and NL) (Svensson and Evetts, 2010). While not a categorical split, these relative differences may lead citizens to identify scientific leaders more with the government in the former group. In addition, trust levels vary for all five countries. One example of this is Covid-19 vaccine uptake. Denmark leads with almost 80% of the population completing the initial Covid vaccine protocol, along with 75% in the UK and the remaining countries hovering around 65% (Our World in Data, 2024).

Despite their differences, populist movements are relevant to all five countries. The US has experienced revolts by populists against established elites on both the right (Donald Trump) and the left (Bernie Sanders). The Brexit vote constituted a populist shock to the UK establishment. The remaining countries all have experiences with various right-wing populist parties. In some of these examples, populist political leaders have also directly targeted scientific authorities, such as President Trump's attacks on Dr. Fauci or British Chancellor Michael Gove's statement that people have had enough of experts.

The surveys were launched through Qualtrics Panels and had quotas for education level, gender, age, and region.[2] Despite the demographic quotas employed, we found that the sample leaned left. For each country, we slightly exceeded 1500 respondents. All surveys were given in the local, majority language. See Table A1.4 in the Supplemental Appendix for basic demographics of the sample. Qualtrics Panels scrubbed the data to remove bad respondents. These included people who were taking the survey from the wrong country, took the survey multiple times, gave straight-line answers, sped through the survey, and failed attention check questions.

After the respondents read the vignettes, they answered a comprehension check question which asked them to identify the vignette topics from a list. The overall pass rate was 71%. In our analyses below, we use only the participants who passed. We present the main results with the full sample in the Supplemental Appendix, and the results are largely unchanged.

The Vignettes

To test our hypotheses, each participant was presented with four different vignettes. These covered different issues, two related to medical decisions and two policy issues. Each presented respondents with an argument for a particular medical approach or to support a policy proposal. The cases concerned climate change policy, treatment for a child who identifies as transgender, immigration policy, and whether to give birth at home or in a hospital. We wanted to vary the topics covered to increase generalizability and to see how people responded in both political and non-political contexts, given how expertise may be perceived as politically biased (Mann and Schleifer, 2020). The transgender vignette arguably blends the two contexts. Although the vignette does not present a policy issue, the topic is highly politicized in some countries. In addition, we varied both the argument quality, with stronger and weaker versions of each argument, as well as the side of the issue each argument was on.

We provided opposing positions on each topic as it is easier to accept claims that align with one's prior beliefs, whether these are political values or factual claims. People generally examine messages less critically if these confirm existing attitudes or come from

sources already perceived as trustworthy or persuasive (Ditto and Lopez, 1992; Druckman and McGrath, 2019; Pornpitakpan, 2004). In the case of the climate change vignettes, the existence of climate change was assumed by both positions, yet the proposals for fighting it oppose each other. This assumption presents a limitation, as populism may be aligned in some places with general skepticism toward climate change (e.g. Huber, 2020; Lockwood, 2018). If populists are less likely to make that assumption, they may be less likely to agree with either form of advice. Our robustness checks, where we control for prior attitudes and ideological positions, indicate that this is not a severe liability (though we do not have an item directly asking about the existence of climate change). For the other three vignette topics, the two sets of advice do not assume a common stance which would likely be associated with populist attitudes, indicating that this limitation would be isolated to one topic.

Argument quality involves a large set of attributes that go beyond formal logic of statements included in the argument (Hahn, 2020). Both strong and weak arguments can take many forms and score high or low, for example, on propositional logic, validity of syllogisms, causal inference, emotional appeals, precision of the language, and appeals to authority (Hahn, 2020; Jaccard and Jacoby, 2019). One important aspect of a strong argument is provision of supportive evidence or demonstration of the relevant expertise (Harris et al., 2016). While a strong argument contains an accurate report of evidence, a weak argument "bears no systematic relationship with the evidence" (Harris et al., 2016: 1504).

Following this, we wrote our stronger and weaker arguments according to simple rules. The stronger arguments gave logical reasons and explanations for their positions and pointed to evidence in the form of research. The weaker arguments gave no evidence and only poor reasons, often saying something to the effect of "this is what is usually done." After each vignette, we asked the respondents to rate how well-reasoned the arguments were. Pooling across all countries, we found that for all eight topic-position combinations, the stronger arguments were rated as stronger than the weaker ones ($p < 0.001$). The average stronger argument was rated 3.37, and the average weaker argument was rated 2.99, on a 5-point scale.

After each argument, the respondents were given either an additional expert source as backing for the argument or no source. We varied whether the expert source was a government or independent source, such as academic researchers. In all cases, we randomized which conditions the respondents received. After each vignette, respondents were asked a series of questions, including whether they would accept the advice (if it was medical) or support the proposal (if it was a policy proposal). After the vignettes, the respondents were debriefed that the scenarios and advice were completely hypothetical and not necessarily worth following. The full vignette texts, in English, are presented in the Supplemental Appendix. See Figure 1 for a diagram of the relevant survey flow.

Variables

Our main dependent variable concerns argument acceptance. This reads either "*How likely is it that you would support the proposal?*" or "*How likely is it that you would follow this advice?*," depending on the topic of the case. For additional analytical leverage,
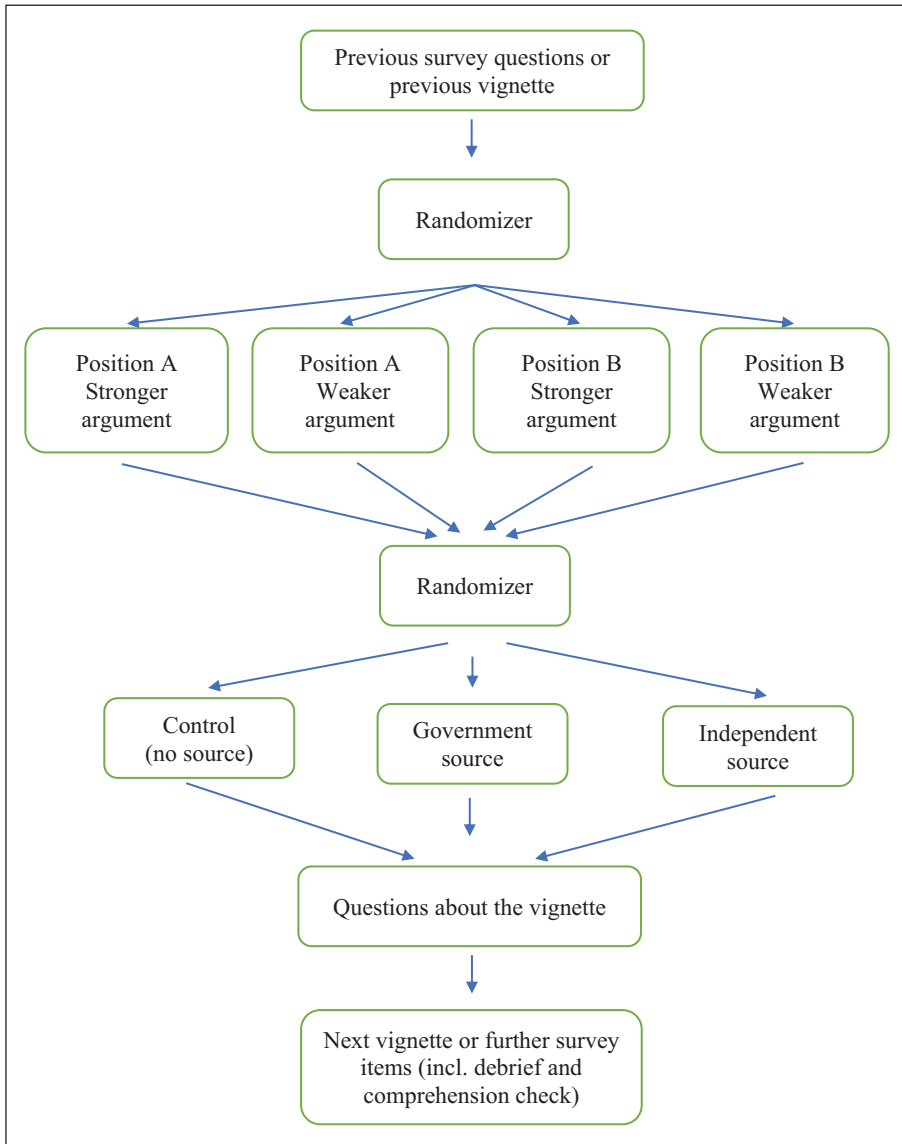
Figure 1. Survey Flow.

we also measure how the argument impacts future trust levels toward the experts behind the argument. Both are measured on five-point Likert-type scales.

Key Independent Variables. Apart from the manipulated factors, our main independent variable is the measure of populism from Castanho Silva et al. (2018). We chose this version of populism as it represents a validated measure of populism with high levels of discriminatory validity and because it follows good methodological practices, such as including negatively worded items. In addition, a study comparing commonly used

populism measures showed that it has relatively high internal coherency and cross-national validity (Castanho Silva et al., 2020).

The scale relies on three subscales: people-centrism, anti-elitism, and Manichean outlook. As these represent separate constructs, the whole scale was not found to have a high Cronbach's alpha in any country. It ranged from 0.39 (US) to 0.57 (CZ). We do not believe this to be a problem, as it is a likely result of its composite nature. Populism represents a noncompensatory concept in which the three subscales are only weakly correlated with each other. Following recommended procedure, we computed the aggregate measure of populism by first re-scaling each subscale from 0 to 1 and then multiplying them with each other (Castanho Silva et al., 2020; Erisen et al., 2021). The effect of this is that individuals who score quite low on even one facet of populism will score low on the overall scale, as the presence of all three facets is generally judged as necessary for one to be considered populist.

Demographic and Control Variables. In our models, we include several demographic and control variables. For respondent demographics, we control for age, income (with a different scale for each country), education level (a binary based on university-level or higher), and whether they live in an urban environment. We include demographic control variables in our models, despite randomization, to get a more precise estimate for our variables of interest. This was specified in our preregistration.

To evaluate whether our results regarding populism are driven by ideology or party, we control for both in robustness analyses. Party is measured with lists of the major parties (and an "other" option) in each country. Ideology is measured with four ideological questions, covering various economic and cultural issues, adapted from the Chapel Hill Expert Survey (Jolly et al., 2022), which we used to create a scale. In the Czech Republic and the Netherlands, the Cronbach's alphas were only 0.30 and 0.41, respectively, suggesting that ideology is not a one-dimensional phenomenon there. The scale had an alpha above 0.60 in all other countries. The correlation between the ideological scale and our measure of populism was only $r = 0.03$, and the correlations between the individual ideological items and our measure of populism were similarly low, not exceeding $r = 0.14$. We also checked the correlation between the ideology and populism at the country level. For the Czech, Dutch, and US samples, the correlations are close to zero. However, there is an $r = -0.21$ correlation in the UK, and an $r = 0.17$ correlation in Denmark. These represent very weak correlations and are in opposite directions, with high levels of populism associated with slightly more left-wing views in the UK. This indicates that our measure of populism may capture its "thin-centered" nature. For an additional robustness check, we included two prior attitudes for each vignette topic, which we then combined. For the analysis, we adjusted the direction so that higher values always indicated more agreement with the vignette in question. Text for the prior attitude items is in the Supplemental Appendix.

Modeling Strategy

Except where indicated, all main analyses use multilevel models, pooling over both country and case, with fixed effects for country and vignette topic. As each respondent will be replicated four times in the dataset, we have a random intercept for each respondent. Our analysis diverges in minor ways from what we preregistered, and we have included in our Supplemental Appendix a section explaining these divergences. They had minimal impact

on our substantive results and in the Supplemental Appendix we present the analyses exactly as planned in the preregistration.

Describing Populism in Our Sample

The core of our analysis attempts to understand how individuals with varying levels of populist attitudes respond to expert advice in specific scenarios. However, to understand more fully how populists relate to expert advice, we begin by analyzing how populism relates to general measures of expert trust and specific attitudes toward expertise. This combines research threads which have examined relationships between populism and technocracy (e.g. Bertsou and Caramani, 2022) and between populism and general measures of trust (e.g. Geurkink et al., 2020; Huber et al., 2022). We show that populists' general distrust does not translate into opposition toward the position of experts in society. Populists and non-populists are quite similar in how they see the role of experts.

To show the impact of populism in a comprehensible way and using realistic numbers, we separated our sample into those who scored in the top quarter of the populism scale, and those who scored in the bottom quarter. For purposes of simplicity, we call these groups populists and non-populists, respectively.

In our survey we asked our respondents how much trust they have in 15 different institutions and types of individuals in society. This included political and governmental groups, media, and scientific institutions. Averaging the whole battery together we formed a trust scale (alpha=0.91), running from 1 (completely distrust)—5 (completely trust). The mean for populists was 2.8, and non-populists 3.5. The difference here corresponds to approximately 1.1 standard deviations on the trust scale. An alternative way of looking at this, reflected in Table 1, is to see what percentage of each group is generally trusting, with a score greater than 3. This adds simplicity and comprehensibility, with the drawback that the size of the difference is ignored. We argue, however, that which side of the equation someone is on—whether they trust or distrust—gets at the crux of the matter.

In our pooled sample, we see that 80% of non-populists are generally trusting in society and societal institutions, whereas only 35% of populists are. We include in the table below four specific items from that scale: politicians, the national government, scientists, and specialized regulatory agencies (like the CDC or EPA in the US). Although the scale has a high Cronbach's alpha, we see notable differences between these items. Politicians and the national government are much less trusted (by both groups) than scientists and regulatory agencies. Scientists are the most trusted group, with even a majority of populists indicating trust.

We asked our respondents to rate the acceptability of different kinds of actions taken by regular citizens, experts, and governments—actions which relate to the role of experts and expertise in society. Here populists and non-populists were quite alike, echoing previous research on populism and technocratic attitudes (Bertsou and Caramani, 2022). As with our measures of trust, we transformed their responses into a dichotomous variable, indicating whether they generally found the action acceptable or not.

Our acceptability items broadly covered three main areas: how individuals should act in relation to experts and expert advice, how scientists should behave (in part in relation to politics), and how politicians and government officials should relate toward experts and science. In all three areas, the differences were very minimal between populists and non-populists. Both groups generally think it unacceptable for individuals to ignore expert advice or for politicians to support policies which contradict what experts say or to

Table 1. Populism, Trust, and Attitudes Toward Expertise (in Percent).

	Pooled		CZ		DK		NL		UK		US	
	Pop	Non	Pop	Non	Pop	Non	Pop	Non	Pop	Non	Pop	Non
Measures of trust												
Overall societal trust	**35**	**80**	31	78	35	86	34	82	34	70	39	72
Politicians	**4**	**28**	2	16	7	36	5	33	2	15	4	21
The national government	**8**	**47**	6	33	11	53	8	56	4	30	14	46
Scientists	**62**	**87**	60	88	63	86	48	88	70	87	66	89
Specialized regulatory agencies	**45**	**77**	41	74	34	76	37	78	57	80	49	75
Acceptability												
Individuals ignoring what scientific experts say	**18**	**14**	17	13	15	12	25	15	13	17	20	11
Criticizing experts on social media	**28**	**22**	22	20	34	21	51	36	21	13	21	19
Following expert advice without own research	**17**	**29**	15	32	13	30	15	30	24	28	16	24
Scientists exaggerating findings to get compliance	**8**	**4**	13	8	6	3	9	6	4	3	6	7
Scientists publicly advocating for political policies	**22**	**33**	16	24	27	39	27	38	24	20	19	27
Experts pressuring gov. to change policies	49	47	44	51	54	45	42	46	61	51	45	50
Politicians supporting policies against what experts say	**8**	**12**	9	8	11	14	9	13	4	8	8	10
Gov. allowing scientific experts to determine policy	30	32	18	31	27	27	32	34	48	41	26	33
Officials putting pressure on experts to support gov. policy	6	6	10	10	4	4	8	8	2	4	5	7
Gov. using finances to guide the direction of research	22	24	26	34	10	18	14	18	23	35	25	34
Officials presenting science in a way that supports policy	13	15	13	12	8	8	13	25	13	27	16	23
Gov. giving autonomy to public scientific institutions	**34**	**44**	28	59	34	38	29	46	44	46	34	44
Respondents												
Percent of category total	25	25	33	12	12	46	20	27	27	22	36	12

For trust and acceptability items, scale runs from 1 to 5, with the percentages above representing the percentage who answered > 3. Item text shortened here somewhat from survey. Two-tailed *t*-tests were carried out in the pooled sample, using the binary variables here. Bold-formatted values indicate a significant difference with $p < 0.05$.

pressure experts to support government policy. As previous research has indicated (Bertsou and Caramani, 2022), populists are not averse to giving experts and expertise an important role in society.

When looking at country differences, we can look for two separate kinds of differences. First, does the distribution of populists and non-populists vary by country? And second, do populists and non-populists have very different attitudes in different countries? The least populist country is Denmark, where only 12% are populists and 46% are

non-populists. The most populist countries are the Czech Republic and the United States, both with populists making up over 30% of the sample and non-populists at only 12%. In general, the differences we see between countries in terms of responses of populists and non-populists are minimal and unsystematic. The patterns we see for the pooled sample are largely replicated in each country.

Our findings indicate that populists have lower levels of trust in a variety of institutions, as compared to non-populists, but their distrust is most acute for governmental targets. Despite this and reflecting previous research (Bertsou and Caramani, 2022), populists in our sample are broadly in favor of expertise. In the Experimental Results section, we attempt to better understand what may be behind this apparent contradiction.

Experimental Results

The descriptive results demonstrate that one's level of populism is associated with large differences in levels of trust, and yet populists and non-populists are not miles apart regarding the role of experts or expertise in society. As such, there is some prima facie evidence that populists are willing to accept expert advice. To analyze this possibility in more detail, we turn toward the results of our experiments. In this section, we first carry out our planned analyses, describing how populism, advice acceptance, and potential moderators (expert source and argument strength) relate to each other in our vignettes. Then, we explore why the patterns we see may be present.

Does Populism Predict Less Acceptance of Expert Advice?

We first hypothesized that higher levels of populism would be associated with less acceptance of expert advice **(H1)**. This is what we found (B = –0.44, p = 8.76e-10). Populism is considered orthogonal to ideology, and both in pooled and country-based analyses, these results were robust to the inclusion of ideological and party covariates. This indicates that distrust of expertise is not simply the downstream effect of ideological position. Full regression tables, including for these robustness checks, can be found in the Supplemental Appendix. That these results were robust to this inclusion is unsurprising, as the correlation between populism and ideology was near-zero. Similarly, using the same categories of non-populists and populists as above, the non-populists scored 42 on our ideology scale, while the populists scored 45 (on a scale from 0 to 100, with higher values being more right-wing). In no country was the difference between the two groups greater than 10 points. Overall, our sample leans left, with populists being only marginally more right-wing than the non-populists.

As a stronger robustness check, we controlled for prior attitudes toward the vignette issues. Unsurprisingly, prior attitudes are extremely strong predictors of advice acceptance, yet their inclusion did not eliminate the overall effect of populist attitudes. In fact, the coefficient became marginally larger. We believe, therefore, that the general finding here is unlikely to be driven by ideology or policy position.

Our analysis so far has pooled together the four vignette topics as well as the five countries. It may be that these relationships vary considerably by topic or by country, and the pooled results could theoretically be reflecting strong effects in only a few cases. Therefore, we have disaggregated our analysis (Figure 2).

By disaggregating in this fashion, we do indeed see some differences between topics and countries. In all four cases, the pooled estimate is significant, yet there is great
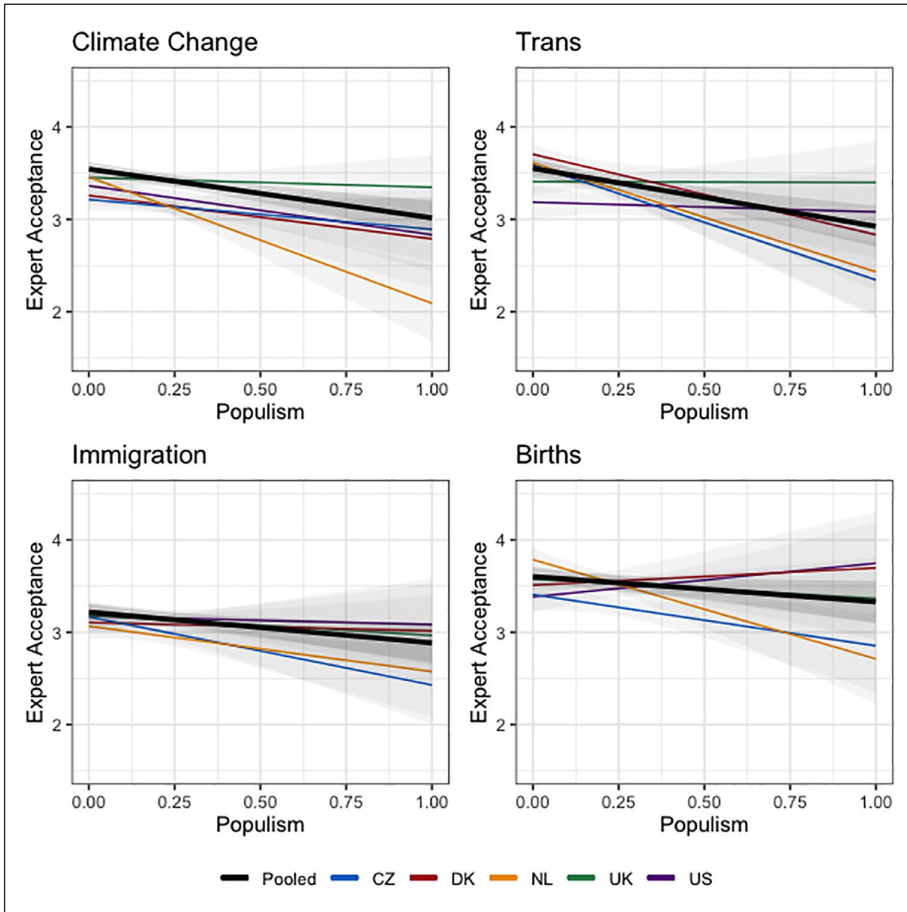
Figure 2. Disaggregation of Results By Topic and Country.
Predicted values based on OLS models. The pooled models included fixed effects for country.

variation in how large of an effect we see. Both the birth and immigration vignettes only displayed a single country-level, significant relationship between populism and advice acceptance. We were interested in whether populist anti-expert sentiment was most activated for political topics. While the birth vignette is the least political of all, immigration is highly political (and politicized), presenting no clear-cut pattern. We see some consistent differences between countries. The UK sample showed no significant associations between populism and advice acceptance, while both the US and Danish samples only had one. This may reflect idiosyncrasies inherent in our samples. That said, it is unclear why we would see exactly these country differences.

One possibility is that there are associations between populism and individual issues on the country level, emerging out of specific political contexts. While the correlation between populism and our overall ideology scale was near zero, the correlation between populism and individual items of that scale—ones which touch on topics of the vignettes—was at times higher, and sometimes in opposite directions across issues and countries. By pooling across countries, these effects may be evened out. We re-ran these regressions,

controlling for our individual ideology measures, and once again all the pooled estimates were significant, yet two additional individual associations became insignificant at the country-issue level. When we instead control for the respondents' prior attitudes for each vignette, we find that more of the relationships become significant, not fewer. These robustness checks indicate to us that the pooled findings are unlikely to be driven by political associations between populism and political stances taken in the vignettes.

Because of these divergences, we interpret these findings as showing a general tendency for populism to be associated with less acceptance of expert advice, but with a large degree of variation depending on both country and topic. Some of these associations may be due to local relationships between populism and individual attitudes or political movements, but the results are not very straightforward to interpret, as controlling for prior attitudes for the relevant issues did not diminish the results. Furthermore, if controlling for ideology makes a relationship insignificant, it may be that ideology is mediating the effect of populist attitudes. We can say that in many instances, populists will be as accepting of expert advice as non-populists, although the overall tendency is toward less acceptance.[3]

Does Populism Interact with the Presence of an Additional Expert Source?

We hypothesized that acceptance of advice is higher when supported with an additional, expert source **(H2).** However, we did not find support for this (B=0.02, $p < 0.28$). We did find support for our third hypothesis, that acceptance of advice is higher if that additional expert source is independent, rather than affiliated with the government **(H3).** With the control (no extra expert source given) as the reference category, we found no statistically significant increase in acceptance with a government source (B=−0.008, $p < 0.73$), but we found slightly greater acceptance when the source was independent (B=0.05, $p < 0.03$). Despite statistical significance, the effect size is small.[4] We devote more space in the discussion to consider what these findings indicate.

We predicted that populism would moderate the above relationships—that acceptance levels among those scoring higher in populism would be less impacted by an expert source **(H4)** (B=−0.15, $p < 0.23$) and that the independence of an expert source would have a greater impact on acceptance levels among those scoring higher in populism **(H5)** (Government source: B=−0.15, $p < 0.31$; Independent source: B=−0.16, $p < 0.28$). In both cases, the interactions were insignificant, and the hypotheses not supported. Given the weak effect of the treatment, that these interactions are insignificant is not unexpected.

Does Populism Interact with Argument Quality?

We found strong evidence that advice acceptance is higher when it is supported with a stronger (vs weaker) argument **(H6a)** (B=0.22, $p < 2e$-16). Similarly, the quality of the argument also impacted how the respondents said they would adjust future trust levels toward the expert authorities behind the advice **(H6b)** (B=0.24, $p < 2e$-16).

Are these two relationships moderated by levels of populism **(H7a, H7b)**? Here we found no support for our hypotheses (Acceptance: B=−0.10, $p < 0.43$; Future trust: B=−0.08, $p < 0.39$). Figure 3 shows the relationship between populism, argument quality, and advice acceptance. We see clearly that the effect of improved argument quality is very similar among people at both the highest and lowest levels of populism.
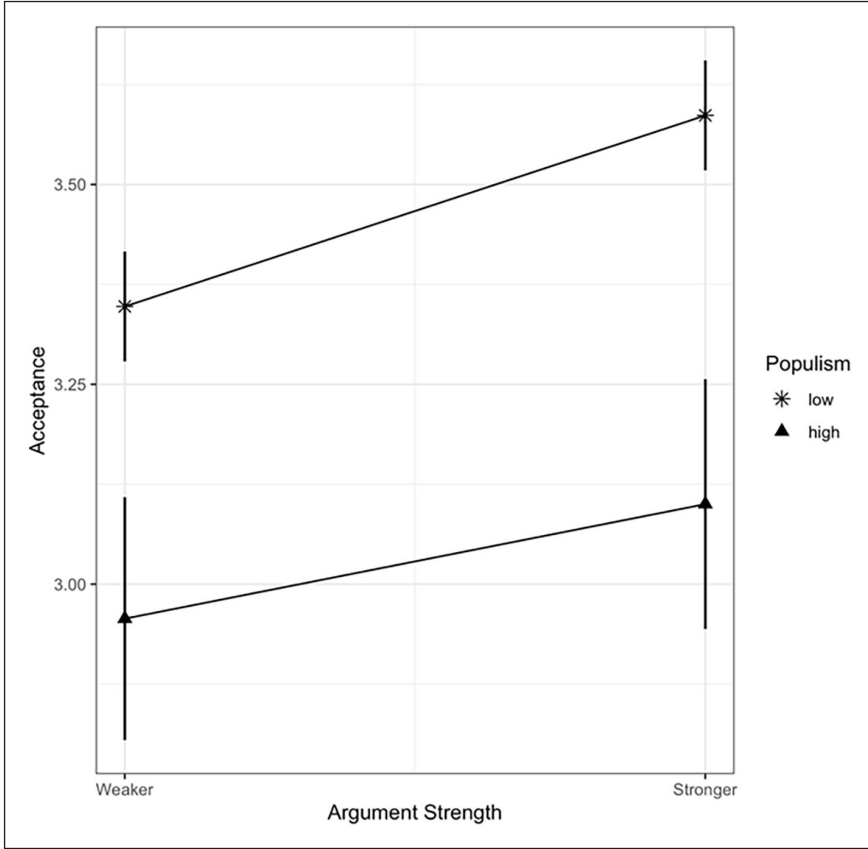
Figure 3. Populism and Argument Quality.
Predicted values based on hierarchical linear model.

While we argued that populists would be relatively more swayed by argument quality, as they are less moved by expertise, we do see, at least, that they are *as* swayed by argument quality.

Possible Explanations for These Results

The above results are in some respects contradictory. While populism is associated with lower levels of trust and less acceptance of advice, populists are equally impacted by the strength of the argument and an additional expert source.

To understand this dynamic, we explored whether populism predicts how politically biased or well-reasoned the vignettes were assessed to be. We found that populism impacted both these assessments. Populists were more likely to perceive political bias in the vignettes (B=0.95, p<2e-16) and were also more critical of the argument quality (B=−0.40, p<1.54e-09). By having a mix of topics, some more political and politicized than others, we can assess how populism is associated with perceived bias across these domains. As can be seen in Figure 4, in all four cases, we see a significant association
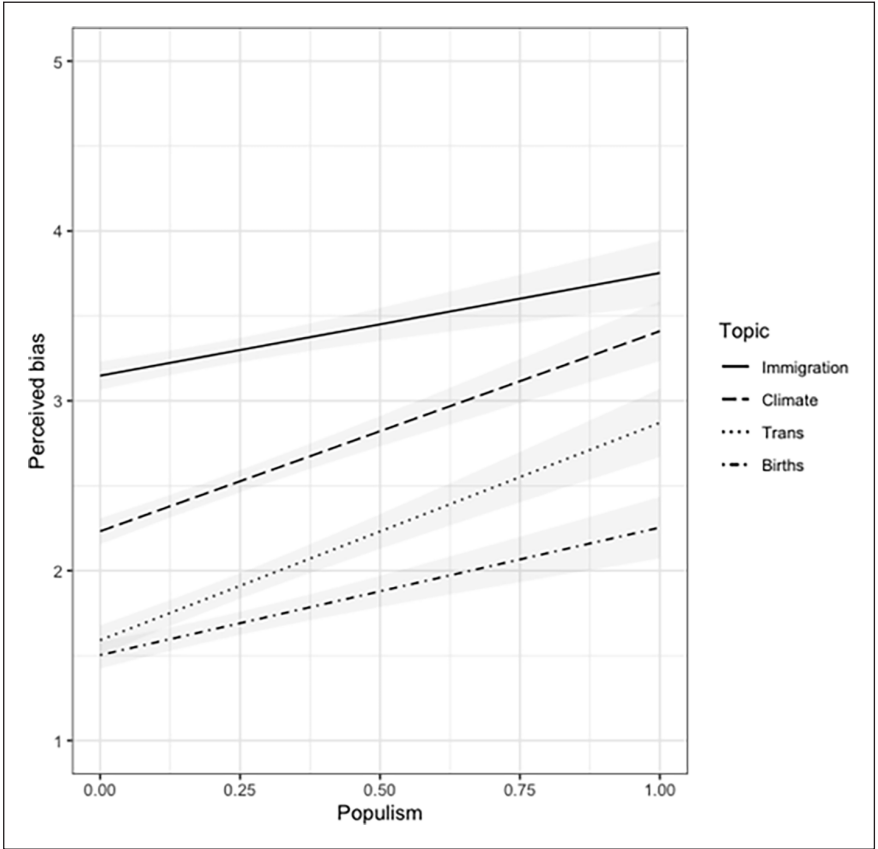
Figure 4. Populism and Perceived Political Bias.
Predicted values based on OLS models. Perceived bias runs from 1 "not at all" to 5 "completely," and with the midpoint "moderately."

between populism and perceived bias, with varying effect sizes and significantly different baseline perceptions of bias.

These results provide a potential explanation for the above findings. It may seem strange that populists and non-populists have different levels of trust and acceptance if they respond equally to the strength of arguments, yet that would be misleading. Populists appear equally moved by *increases* in argument quality but are more critical of the arguments and more suspicious that those giving them are politically biased. Their standards appear higher. This could represent a dispositional difference, or it could be the result of existing levels of evaluative trust and cynicism. As in the main analysis above, we conducted robustness checks, controlling for the prior attitudes toward the different vignette positions. We find that prior attitudes strongly predicted perceived political bias yet did not diminish the effect of populism. Therefore, it appears the two are acting separately, and populist suspicion and judgment is not a byproduct of disagreement.

To more formally test this idea, we carried out separate statistical mediation analyses for both potential mediators, as can be seen in Figure 5.
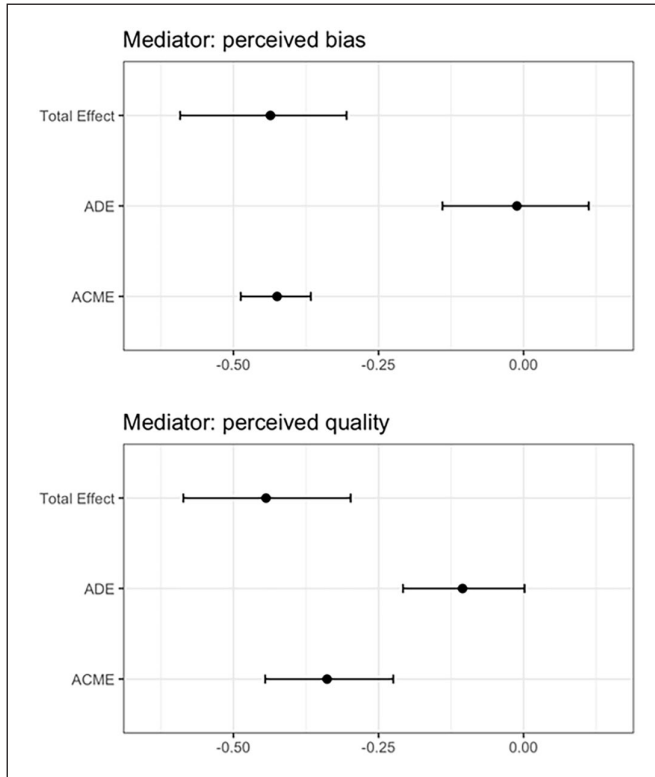
Figure 5. Mediation Analysis.
ADE: average direct effect; ACME: average causal mediation effect. Carried out using the "Mediation" package in R (Tingley et al., 2014). Five hundred simulations for each analysis. Multilevel models with same controls as in the main analysis, carried out on the sample pooling both country and topic.

Both perceived argument quality and perceived political bias represented very strong mediators of the effect of populist attitudes on advice acceptance. In the case of perceived political bias, the average direct effect of populism was insignificant, with the proportion mediated rising to approximately 97%. Perceived argument quality was a slightly weaker mediator, with approximately 77% of the effect mediated, but with the direct effect of populism becoming insignificant once again. If we carry out the mediation analyses again, each controlling for the other mediator, the results are similar, with the effect sizes dropping substantially.

We interpret these results as showing that the decrease in advice acceptance among populists is primarily due to their increased skepticism toward our vignette arguments. This can take the form of perceived political bias or harsher judgments toward the quality of the argument, and these different negative appraisals likely influence one another. There are also presumably additional forms of negative appraisal, unmeasured in our surveys, that could influence lower levels of advice acceptance among populists. Although we would not want to overinterpret these results, especially absent more causal evidence, it is notable that perceived political bias is the stronger mediator. Given that controlling for prior political attitudes did not impact the association between populism and

Table 2. Overview of Hypotheses and Findings (Abbreviated).

Hypotheses	Findings
H1: Populism associated with less acceptance of expert advice	Supported
H2: Advice acceptance higher when supported with extra expert source	Not supported
H3: Advice acceptance higher if extra expert source is independent	Partially supported
H4: The impact of an expert source moderated by populism	Not supported
H5: The independence of an expert source moderated by populism	Not supported
H6a: Acceptance of advice higher when supported with a strong argument	Supported
H6b: Future trust levels toward expert authorities higher with strong argument	Supported
H7a: Impact of argument strength on advice acceptance moderated by populism	Not supported
H7b: Impact of argument strength on future trust levels moderated by populism	Not supported

perceived political bias, this may indicate that the populism scale is picking up a tendency toward political suspicion among populists.

Discussion and Conclusion

Populists appear to have low trust in expert institutions, while at the same time, they express rather technocratic views. This makes it important to understand how these apparently conflicting perspectives can coexist, and how populists would respond when faced with expert advice. In this study, we tested populists' response to expert advice in a broad range of situations. These included medical situations, where one would traditionally accept expert advice, as well as political choices, where individuals are expected to be more critical. While we found consistent relationships between populism and reluctance to accept the advice for the pooled regressions, we also found substantial variation among cases and countries.

Our findings, summarized in Table 2, indicate that populism generally does influence acceptance of expert advice, but populists nevertheless respond to expert sources and to good-quality arguments similarly to non-populists. Populists and non-populists were similarly moved by additional expert sources—not very much, and primarily by independent ones. And both were equally influenced by reading a good-quality argument. As individuals are driven by accuracy goals (Mercier, 2020), we predicted populist individuals would put extra weight on the quality of the argument, as they would discount its source. However, that was not found. The similar response from populists accords with recent research showing that people across the political spectrum are similarly moved by arguments and evidence (Coppock, 2023). Robustness checks controlling for party, ideology, and prior attitudes did not strongly attenuate the main effect of populist attitudes on lower levels of advice acceptance.

Although it is reassuring populists and non-populists appear to respond similarly to changes in argument quality and expert sources, it may appear somewhat paradoxical. If people respond similarly, why do their acceptance levels not converge? Our analysis suggests a potential explanation: populists perceived the arguments as weaker and more

politically biased. These harsher judgments among populists nearly completely mediated their lower levels of advice acceptance. Controlling for prior attitudes toward the vignette positions did not weaken the relationship between populist attitudes and perceived political bias, showing that the association is distinct from one based on policy or ideological commitments.

As our populist respondents were more skeptical toward expert authorities, it makes little sense that they would react similarly to an expert source as non-populists. We therefore view those results with skepticism. Our source treatment did not show a strong impact on our participants in general, yet we do not believe that individuals truly ignore sources. This finding may reflect some key limitations of our study. First, how people respond to vignettes may not fully reflect their behaviors in the real world. Second, our expert source treatment may simply have been too weak, especially as it represented an *additional* source. A stronger treatment, or a more realistic one, could potentially demonstrate differences between populists and non-populists and show larger effects for all participants. Similarly, it may also be that people have specific sources they trust and would not be swayed by a generic one.

We do not argue that populist individuals have low trust toward all sources. They may value some alternative expert sources highly but conversely be skeptical of independent experts who appear to agree with government authorities. An intriguing extension of this research would be to look at the interplay between independent experts aligned or not aligned with governments, especially when those governments are supported by populist respondents. Who counts as the elite changes depending on the electoral success of populist parties (Jungkunz et al., 2021). Once in power, populists may adopt a more guardianship-like approach (Mohrenberg et al., 2021), and understanding the subsequent relationships between government, independent experts, and respondents (populist and not) would be a good direction for future research. These investigations would help us to understand the degree to which populist skepticism is directed at whoever is in power or aligned with them and the degree it is due to the positions and affiliations of current experts.

It is worth noting that the relationship between populism and advice acceptance varies across countries. On the one hand, the Dutch sample showed significant associations between populism and advice acceptance for three of the four topics, while none of the topics displayed significant relationships in the UK sample. We cannot explain exactly why we find this variation, although we would note that some degree of variation is expected. Perceptions of issues and expert stances are not uniform across countries, in part because of different levels and targets of politicization. For example, medical expertise was heavily politicized during the Covid-19 pandemic in some but not all places. In some countries, populist leaders have even praised specific types of experts such as business experts in the case of the Fidesz party in Hungary. Naturally, this should result in some degree of variation in the relationships found. That the results do not substantially change through the addition of prior political attitudes indicates that this variation is not largely due to the political positions of populists in different countries, across different issues. Yet we are reluctant to overinterpret these variations. Going into specific policy positions of different parties, for instance, is beyond the capabilities of our survey and would remain speculative. Moreover, as indicated earlier in the article, the purpose of our country selection was not to analyze the effects of specific populist and political contexts, but rather to get a broad range of countries, with different backgrounds, to try to better understand the general effects of populist attitudes. This limitation can be dealt with by

future research that can focus specifically on the effects of populist parties, governments, and messaging.

There are additional methodological limitations we can consider here. We had difficulty filling our quota for the lowest education level, and so the generalizability to that segment of society is more limited. Furthermore, although we use a common measure of populist attitudes, it may be that results would differ with a different one. There are many similarities between different populist measures, but they are composed of different items and differ somewhat in the conceptual understanding of populism they draw upon. Future research could test these findings with different populist scales to better understand their generalizability.

That populist individuals are not necessarily against expert institutions, but are skeptical about those institutions being truly independent and are more critical toward argument quality, is in line with the finding of Bertsou and Caramani (2022: 6) who found that ". . . in practice populist attitudes go hand in hand with a preference for expertise in politics." Perhaps populists have high ideals for experts in society but feel let down. Perceiving greater levels of political bias could indicate they are inherently more sensitive to signs of political bias—as a disposition—or that this perception emerges as an effect of higher levels of existing distrust. Given our results, we would stress that expert institutions should explain their reasoning and evidence when giving advice to the public, signal independence from politics, and not perceive populists as a lost cause. This may serve to increase trust in expert institutions and improve advice acceptance among those who are more skeptical. There are real-world consequences to consider. Low levels of trust may lead to a disregarding of public health measures, as we saw during the Covid-19 pandemic, as well as lack of support for good policies aimed at countering climate change and other important matters. There may be a tendency to simply wish all members of the public would just accept what experts are saying. But a lack of skepticism and critical judgment is not realistic nor healthy for democracy. We encourage experts in society to present strong arguments with good evidence, with the expectation that their effort will have results.

Future research should investigate the reasons for populist distrust in more depth. Populist citizens often develop affective ties to the leaders of populist parties, and hence, the specific targets of populist distrust of expertise may strongly hinge on the behavior and communication of populist leaders. Prior work has highlighted how the rhetoric of party leaders can shape the opinions of their followers, especially if this rhetoric fits long-standing concerns (e.g. Leeper and Slothuus, 2014). Future research should investigate how anti-expert rhetoric from populist leaders is persuasive to populist voters. Moreover, if populists actually want expertise to play a role in politics and policy but still distrust experts, this tension deserves to be explored in greater depth. Does this distrust emerge from something innate—a kind of personality trait—or can anyone with technocratic ideals become jaded and populist if they feel deceived or disappointed by experts and expert institutions in their country? Or both? This is something future research can examine more closely, perhaps with longitudinal studies. In both cases, there may be lessons for how expert institutions can improve their public communication. When power is given to non-elected expert institutions, those institutions should feel the weight of responsibility to ensure their advice is well grounded and to be honest about their lack of certainty or potential risks or tradeoffs. Previous work on expert communication about Covid-19 vaccines found that while transparency about the negative aspects of vaccines may lead to less vaccine uptake, it also leads to

greater levels of trust in health authorities (Petersen et al., 2021). While there is the temptation for authorities to try to nudge the public toward the *right* decisions, this may risk long-term negative consequences in the form of lower trust levels. There is a limit to trying to secure disgruntled compliance from populists. Regardless of the cause of populist skepticism, the responsiveness of populists demonstrated in this article may serve as encouragement for experts to provide better quality arguments.

Data Availability

Data are available upon request.

Ethical Approval

Approval was obtained for survey from Aarhus University, 31 May 2022.

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Supplemental Material

Additional Supplementary Information may be found with the online version of this article.

Notes

1. These hypotheses and the form of their analysis were preregistered June 25th, 2022. https://osf.io/jg4wr/?view_only=bfb2ad480b154687ab3cc3db7a4b295a Note: We reuse the survey and vignettes for other preregistered analyses. The purpose of each differs, and including all in one publication would be unmanageable.
2. For all countries, it was difficult to locate respondents at the lowest education level, and so that quota was merged with the next level up. Data collection took longer than expected, and when less than 100 participants were remaining for each country, the quotas were eventually released to finish the data-gathering process. Details on quotas—and what was achieved—can be found in the Supplemental Appendix.
3. In the Supplemental Appendix, we display additional analyses where we examine and discuss the relationships between the facets of populism (Castanho Silva et al., 2018) and advice acceptance.
4. The language for the independent treatments differed, with some specifically using the word "independent." Therefore, we chose to test whether this effect was driven by particular cases. We found that the independent treatment was significant only in those cases where the word was used. However, those two cases were also the two political ones—therefore, we cannot be certain if it is due to the language or the topic.

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