environmental politics

Environmental Politics

Routledge
Taylor & Francis Group

Volume 33
Number 5
July 2024

ISSN: 0964-4016 (Print) 1743-8934 (Online) Journal homepage: www.tandfonline.com/journals/fenp20

Process skeptical populist framing of climate change in right-leaning media

Janel Jett, Leigh Raymond & Erin P. Hennes

To cite this article: Janel Jett, Leigh Raymond & Erin P. Hennes (2024) Process skeptical populist framing of climate change in right-leaning media, Environmental Politics, 33:5, 799-819, DOI: 10.1080/09644016.2023.2293433

To link to this article: https://doi.org/10.1080/09644016.2023.2293433

Published online: 25 Dec 2023.

Submit your article to this journal

Article views: 964

View related articles

View Crossmark data

Citing articles: 8 View citing articles

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=fenp20

ENVIRONMENTAL POLITICS
2024, VOL. 33, NO. 5, 799–819
https://doi.org/10.1080/09644016.2023.2293433

Routledge
Taylor & Francis Group

Check for updates

Process skeptical populist framing of climate change in right-leaning media

Janel Jett [a], Leigh Raymond [b] and Erin P. Hennes [a,c]

[a]Harry S Truman School of Government & Public Affairs, University of Missouri, Columbia, MO, USA; [b]Department of Political Science, University of Vermont, Burlington, VT, USA; [c]Department of Psychological Sciences, University of Missouri, Columbia, MO, USA

ABSTRACT

Scholars have noted the compatibility of right-wing populism—centering on belief in an antagonistic relationship between 'the people' and 'the elite' – with climate change skepticism. In this paper, we examine *process skepticism*, a type of criticism that we argue is especially well-aligned with populism. Process skepticism focuses not on denying evidence of climate change (*evidence skepticism*) nor on critiquing policy responses (*response skepticism*), but on directly attacking the scientific and political processes underlying climate science and policy decision-making. We examine the prevalence of populist ideas in climate skeptical frames disseminated in U.S. media between 2008 and 2020. As expected, we find robust evidence of populist skepticism, particularly in far-right outlets. More importantly, the majority of populist messages were process skeptical in nature. The emergence of process skeptical populist frames may critically impede climate policy efforts by promoting distrust that is especially resistant to increasing scientific evidence or policy advancements.

ARTICLE HISTORY Received 21 February 2023; Accepted 3 December 2023

KEYWORDS Climate change skepticism; process skepticism; right-wing populism; framing; U.S. media

1. Introduction

Despite ever-mounting scientific evidence of anthropogenic climate change alongside continuous advancements in climate technology, resistance to climate policy persists among the public (Howe *et al.* 2015). This resistance appears to be supported, in part, by climate change-skeptical messages disseminated by right-leaning media outlets (Bolsen and Shapiro 2018). Scholars have expressed concerns that hyper-partisan media outlets – particularly far-right sources – are leveraging populist rhetoric that rejects traditional norms of objectivity (Rae 2021). Populism has been a topic of increasing scholarly interest particularly

CONTACT Janel Jett janeljett@missouri.edu

This article has been corrected with minor changes. These changes do not impact the academic content of the article.

© 2023 Informa UK Limited, trading as Taylor & Francis Group

given the flexibility of its ideas to adapt to new contexts and influence public opinion (Mudde and Rovira Kaltwasser 2012). Climate change policy – given its scientific, elite-driven nature – has thus become embroiled in populist narratives of 'the people' being controlled by a corrupt 'cosmopolitan elite' (Mudde 2004, Lockwood 2018).

Scholars have long recognized the pervasiveness of skepticism regarding anthropogenic climate change, particularly in the United States but also internationally (Leiserowitz *et al.* 2022). This research has traditionally focused on climate change denial discrediting scientific *evidence* of climate change (Poortinga *et al.* 2011, Dunlap 2013). However, scholars have argued that mounting evidence and increasing direct experience of the impacts of the changing climate should lead skepticism to subside (Whitmarsh 2008, Albright and Crow 2019). Instead, as outright denial has become increasingly untenable, rhetoric has shifted to include *response* skepticism, that is, messages that cite problems that will result from policy solutions (Capstick and Pidgeon 2014, Cann and Raymond 2018). In the current work, we examine the emergence of a third type of skepticism: *process* skepticism, which directly attacks the credibility of scientific and political processes (Van Rensburg 2015).

Given that populism centers on a general hostility towards elites, our core hypothesis is that contemporary populist messaging about climate change particularly targets *process skepticism*. Rather than disputing scientific or real-world evidence (e.g. wildfires, floods) of climate change or the efficacy of climate action, we posit that populist skeptic frames focus on narratives undermining both how scientists develop climate knowledge and how policymakers take action on climate change. We argue that process skepticism offers new and highly resilient avenues for promoting inaction by directly increasing distrust in the motivations and credibility of elite scientists and policymakers. This may help explain why right-wing populism is so powerfully connected to climate attitudes.

1.1. Information framing

Scholars have documented effects of the media on public opinion, often through the concept of framing (Entman 1993, Nelson *et al.* 1997, Chong and Druckman 2007). *Frames* refer to messages that organize an issue by emphasizing particular factors and explanations relative to others (Chong and Druckman 2007). By doing so, frames define problems, causes, and solutions while conveying assessments that promote a particular interpretation of an issue (Entman 2007). Framing is an inevitable part of news reporting, but it can introduce content bias if framing of an issue consistently supports a specific interest or ideology (Entman 2007). These communication decisions

can then affect public opinion, shifting individual attitudes and adjusting the weight placed on competing considerations about an issue (Nelson *et al.* 1997).

1.2. Right-wing populism

Adopting an ideational approach to populism, we define it here as a set of ideas encompassing the antagonistic relationship between 'the people' and 'the elite' (Mudde 2004, Rooduijn 2014, Hawkins and Rovira Kaltwasser 2018). Populism understands 'the people' – who variably refer (implicitly or explicitly) to all citizens, the working class, or ethnically homogeneous groups – to be the rightful source of political power and authority in a democracy. From this perspective, politics should reflect the general will of the people, or 'volonté générale' (Mudde 2004). Instead, the 'pure people' are seen as being unjustly removed from this centrality in society and politics by an evil, selfish, incompetent, and/or corrupt elite (Mudde 2004, Barr 2009). As with 'the people', membership in 'the elite' is variable and can include ostensibly powerful political, economic, and/or cultural actors (Bonikowski 2017). When intellectuals are seen as part of the ruling class, anti-elitism can become linked to anti-intellectualism, or a general suspicion of experts (Rigney 1991).

Lacking the strength and coherence to stand as a lone ideological center, populism often attaches to other constructs and 'thicker' ideologies (Taggart 2004). Thus, populist ideas manifest in diverse ways depending on the political and issue context, as well as the goals of the message producer (Hameleers *et al.* 2019). *Populist frames*, then, promote issue interpretations that simplify political conflicts into an adversarial relationship between the elite and the public (Rooduijn and Pauwels 2011, Hameleers 2018). In this view, populism is an attribute of a message, rather than its messenger. Instead of characterizing actors as populist or non-populist, populism can be measured by the prevalence of its ideas (Bos *et al.* 2010, Rooduijn and Pauwels 2011, Rooduijn 2014, Hameleers *et al.* 2019).

Media sources – especially hyper-partisan sources who set themselves apart as anti-establishment voices of the people (Rae 2021) – may shift the framing of issues towards a populist viewpoint to further their ideological goals or simply to garner attention (Nadler 2019). Yet, populist frames can spread in the mainstream as well. Although mainstream media outlets tend to have stronger ties to the established political order (Rooduijn 2014), they are increasingly vying for notice in a crowded media environment and may turn to populist messages to maintain relevance and generate engagement with their content. Indeed, research analyzing Western European media sources found elite media communication to be similarly populist compared to the tabloid press (Rooduijn 2014).

Media outlets' decisions to create and disseminate populist messages, then, cultivate conceptions of political issues among their viewership. Scholars have documented the historical and continued importance of media activists in shaping conservative American political thought, particularly through a populist style (Hemmer 2016, Peck 2019). For instance, consumers of right-leaning news about COVID-19 parroted media narratives and articulated emotionally-charged skepticism towards a contemptuous 'liberal power bloc' ostracizing conservatives (Nadler *et al.* 2021). Likewise, experimental evidence shows that exposure to populist rhetoric leads to increased anti-intellectual processing of expert scientific consensus cues (Merkley 2020). Because media outlets are critical sources of issue information for their consumers, they can both produce populist frames to pursue their own goals and further the reach of rhetoric dispersed by populist leaders and parties (Mazzoleni 2008).

1.3. Climate skepticism

Right-wing populism seems particularly congruent with climate skepticism (Lockwood 2018, Forchtner 2019, Huber 2020, Jylhä and Hellmer 2020, Krange *et al.* 2021, Kulin *et al.* 2021) and may contribute to the role of the media in the development of climate change as politically charged (Antilla 2010, Boykoff 2011, Bolsen and Shapiro 2018). *Climate skepticism* is a broad set of arguments that dispute or reject the orthodox position of climate change as an issue (Capstick and Pidgeon 2014, Van Rensburg 2015). Traditionally, 'climate skepticism' refers to *evidence* (or *epistemic*) *skepticism*, or disbelief regarding scientific and physical evidence of climate change (Capstick and Pidgeon 2014). Evidence skepticism includes claims that climate data is inconclusive, that climate change is a natural phenomenon, and/or that there are only limited negative effects of climate change (Van Rensburg 2015). Evidence skepticism traces in part to narratives of 'scientific debate,' which were validated by the media equally covering both 'sides' of the issue, despite overwhelming scientific support for the reality of climate change (Anderson 2009, Boykoff 2013, Boussalis and Coan 2016).

More recently, scholars have documented a prevalent new form of skeptic frames in conservative think tank documents and U.S. newspapers that focuses on negative consumer and economic effects of policy responses to climate change (Karapin 2016, Cann and Raymond 2018, Jett and Raymond 2021). This idea of *response skepticism* refers to doubts about the desirability or efficacy of action (Capstick and Pidgeon 2014), including questions regarding the benefits of policy solutions compared to the economic costs and skepticism towards individual policy instruments (Van Rensburg 2015). In contrast to evidence skepticism, response skepticism can acknowledge the

existence of climate change, but suggests that action is ineffective, unfair, or more harmful than the climate problem.

We focus on a third form of skepticism—*process skepticism*—which questions the scientific and political processes underlying mainstream climate science and policy decision-making (Van Rensburg 2015). This comprises beliefs that climate change is a hoax perpetuated by scientists or politicians, that political processes are interfering with science, or that the media is sensationalizing climate change and distorting public opinion. Some prior studies have captured what we refer to as process critiques within their definitions of other forms of skepticism. For instance, as part of their analysis of factors of climate skepticism, Capstick and Pidgeon (2014) include survey items like 'scientists have hidden research that show climate change is not serious' and 'climate change is a scam.' While the authors include these items in response and epistemic skeptic factors, respectively, our theoretical perspective would indicate that these items better capture process skeptic arguments.

Coan *et al.* (2021), by contrast, do empirically categorize process skeptical arguments as a separate class. They offer a computer-assisted classification of claims in conservative think-tank documents and contrarian blogs. Of their five identified 'super claims,' the first three match the traditional understanding of evidence skepticism: questioning whether climate change is occurring, caused by humans, and harmful to (non)human populations. The fourth super claim – 'climate solutions won't work' – closely relates to response skepticism. The fifth super claim, that 'climate movement/science is unreliable,' is thematically similar to process skepticism. This claim depicts scientists, environmentalists, and the media as biased and alarmist, and identifies conspiratorial narratives around both climate science and policy. Notably, these 'unreliable' claims were among the most prevalent in their sample, and were particularly common in contrarian blogs (Coan *et al.* 2021). Similarly, Forchtner and Balša Lubarda (2023) find that both process and response skeptic arguments are more common than evidence skepticism in messaging by far-right Members of the European Parliament.

The argument in favor of treating process skepticism as a unique claim type concurs with Van Rensburg (2015; see Table 1), who contends that process skepticism is especially powerful because it is not reliant on evidence or response skepticism. Instead, it can enable those beliefs to persist or even strengthen them. For instance, believing that scientists hide evidence refuting anthropogenic climate change facilitates greater distrust of subsequently published research. Likewise, believing that media coverage is sensationalized bolsters persistent apathy even in the face of dramatic reports of climate disasters.

We draw increased attention to process skepticism because – as populists view politics through the lens of an oppositional relationship between elites

Table 1. Definitions of climate skeptic types and example claims (modified from Van Rensburg's (2015) taxonomy).

	Type of Skepticism		
	Evidence	Process	Response
Definition	Challenges scientific basis of human-caused climate change (trend, attribution, and impact)	Critiques scientific knowledge generation processes and related climate decision-making processes	Argues against climate policy responses (instruments and style) across scales of governance
Associated Claims	• Little scientific consensus, inconclusive data • No warming trend • Not human-caused • Impacts insignificant or distant • Climate change beneficial	• Hoax • Socialist agenda • Scientists manipulate or hide evidence. • Activists seek attention or profit • Media sensationalism	• Better to just adapt • Costs of mitigation too high • Policies ineffective • Not worth threat to jobs and economy • U.S. should not act unilaterally

and the people – we expect that populist skeptic frames will most commonly use process skepticism. Populist narratives target politicians, civil servants, and intellectuals for unduly exerting influence – influence that should rightfully belong to 'the public' – and conspiring to enact policies as part of a cosmopolitan elite agenda (Bonikowski 2017, Lockwood 2018, Marquardt *et al.* 2022). For example, Peck (2019, p. 4) describes a common populist media narrative focused on 'overeducated elites' expropriating the wealth of 'producing' Americans and imposing non-traditional cultural values through government power. From this perspective, the action necessary to address climate change is seen as disconnected from 'the people.' Liberal elites (including intellectuals, politicians, and the media) are perceived as manipulating the American public, and global elites are perceived as undermining national sovereignty (Forchtner 2019, Kulin *et al.* 2021).

Thus, we expect the presence of process skepticism to be a key characteristic among populist frames. Rather than a minor framing shift, we argue that these process-oriented narratives may be particularly resistant to increased scientific evidence, new policy solutions, and technological advancements. Because process skepticism targets the underlying practices of governance and scientific knowledge development, it promotes pernicious distrust and resilient apathy irrespective of changes to the climate policy landscape.

1.4. Research hypotheses

Based on the research above, and previous studies of non-climate populist media framing in European media (see Hameleers *et al.* 2019), we test the following hypotheses. First, we expect (H1a) that a substantial portion of climate skeptical frames in right-leaning media are populist in nature, and

(H1b) that populist framing is increasingly prevalent as we move from mainstream to hyper-partisan sources (Hallin and Mancini 2004, Rooduijn 2014, Hameleers *et al.* 2019). Further, we hypothesize (H2) that process skepticism is a common form of climate skepticism across media frames (Van Rensburg 2015, Coan *et al.* 2021, Forchtner and Balša Lubarda 2023). Finally, our key hypothesis is that process skepticism will emerge as the most common form of populist messaging (H3).

We also briefly report findings from two sets of exploratory analyses. First, to preliminarily assess whether the use of process skepticism in populist messaging is unique to right-leaning outlets, we also collected data from several prominent left-leaning newspapers. Second, although our data collection strategy was not well-suited to examine longitudinal trends in detail, we report tentative findings regarding potential changes in populist and process skeptical frames over time.

2. Method

To examine our expectations empirically, we conducted a content analysis of the *Wall Street Journal, Fox News*, and *Breitbart News's* climate change coverage between 2008 and 2020. We follow prior research identifying these sources as important right-leaning American media outlets (Elsasser and Jamieson and Dunlap 2013, Capella 2008, Dunlap 2013, Rae 2021). These sources reflect a diversity of media types (newspaper, television, and internet-based, respectively) and a wide ideological spectrum ranging from mainstream conservative establishment (*Wall Street Journal*) to hyper-partisan alt-right (*Breitbart*). We define these sources as right-leaning based on their audience composition: All three are among the most trusted media outlets by Republicans (YouGov 2022).

For the *Wall Street Journal*, we collected editorials and op-eds using ProQuest Newstream; for *Fox News*, we used transcripts of television programming collected from NexisUni; and for *Breitbart*, we identified articles using Google News. For all three sources, we collected the first 150 articles by relevance using the search terms 'global warming' OR 'climate change' published between 2008 and 2020. This sampling frame enabled us to collect data over the period of the prominent rise of right-wing populism globally (Norris and Inglehart 2019), and under both Democrat and Republican presidencies.

We followed Rooduijn (2014) in choosing paragraphs as the most suitable unit of analysis. Across the three right-leaning sources, this resulted in an initial sample of 6,846 individual paragraphs ($n_{\text{WSJ}} = 1{,}448$, $n_{\text{Fox}} = 2{,}991$, $n_{\text{Breitbart}} = 2{,}407$). Paragraphs not containing skeptic claims were removed, resulting in a final sample of 3,827 paragraphs ($n_{\text{WSJ}} = 873$, $n_{\text{Fox}} = 1{,}604$, $n_{\text{Breitbart}} = 1{,}350$).[1] Paragraphs were treated as individual (i.e. each paragraph

could contain only one code for each dimension) and independent units (i.e. we did not account for clustering of paragraphs within articles).[2]

The paragraphs were coded along two dimensions: *evidence* vs. *process* vs. *response* skepticism and *populist* vs. *non-populist*.[3] We coded *evidence, process*, and *response* skepticism as three exclusive categories of skepticism using Van Rensburg's (2015) typology presented in Table 1. We coded frames as *populist* or *non-populist* by looking for either (or both) people-centrism and anti-elitism within each paragraph (Rooduijn and Pauwels 2011, Rooduijn 2014). People-centrism was operationalized as paragraphs that positively referred to the people in any form, including references to 'the people,' 'our country,' 'taxpayers,' and 'citizens.' Anti-elitism was operationalized as paragraphs that negatively referenced the elite, including 'politicians,' 'business elite,' 'experts,' and 'the media'. Given that populism focuses on 'elites' and 'the people' as overall groups, paragraphs discrediting specific scientists, politicians, or political parties (i.e. particular scientists involved in 'Climategate,' President Obama, Democrats) were not coded as populist. This allowed for a cleaner distinction between populist relative to merely partisan media frames, and follows prior work that emphasizes this difference (Rooduijn 2014).

Thus, *non-populist skeptic frames* make claims questioning the science of climate change, the processes of climate science and policymaking, or the need for climate policy action; while *populist skeptic frames* make similar claims and additionally emphasize the antagonistic relationship between elites (as a whole) and the public. Table 2 provides the full 2×3 table of possible codes with example text for each cell.

3. Results

Table 3 presents an overview of climate skeptic framing in the *Wall Street Journal, Fox News*, and *Breitbart* between 2008 and 2020 as a function of type of skepticism and the presence of populist characteristics. We examine each hypothesis in turn.

3.1. H1: right-wing populism is common in climate skeptical frames

First, and consistent with H1a, *populist* climate skeptic frames were fairly common, constituting 22.5% of our sample. Populist frames appeared in all three sources, but consistent with H1b, increased along the spectrum from mainstream to more hyper-partisan outlets: 18% of frames in the *Wall Street Journal* were populist, compared to 21.9% of *Fox News* frames and 25.9% of frames at *Breitbart*. Commonly, populist frames focused on elites advancing a climate 'agenda'. For instance, in a 2015 *Breitbart* article, James Delingpole portrayed scientists and policymakers as 'pushing the alarmist narrative' and claimed that 'everything we have been told about dramatic, unprecedented,

Table 2. Definitions and examples of media coding scheme.

		Types of Skepticism		
		Evidence Skepticism: Challenges evidentiary basis of climate change	*Process Skepticism*: Critiques scientific knowledge generation and climate decision-making processes	*Response Skepticism*: Argues against policy responses and government action
Non-Populist vs. Populist	*Non-Populist*: Does not contain either dimension of populism	*"There is no evidence whatsoever to suggest that these floods are anything other than an entirely normal, cyclical event which has been repeated many times over many centuries — with or without the contribution of anthropogenic CO_2."* (Breitbart 2020)	*"Bob, here's the thing – the debate is not between us. It's not over if man has an impact on the temperature. I happen to think it – they do, and you do, too, but the problem is with the exaggeration and the inaccuracies in predictive models."* (Fox 2014)	*"Mr. Biden is ducking the reality that transforming American energy on the scale he imagines will have enormous costs. These include higher electricity prices, more expensive cars and homes, and countless lost jobs in the fossil-fuel industry."* (Wall Street Journal 2019)
	Populist: Contains people-centrism and/or anti-elitism	*"For more than 50 years* ***Climate Alarmists in the scientific community and environmental movement*** *have not gotten even one prediction correct, but . . . on at least 41 occasions, these* ***so-called experts*** *have predicted some terrible environmental catastrophe was imminent . . . and it never happened."* (Breitbart 2016)	*"****Scientists laughing*** *from their lavish laboratories . . . [as] tens of billions* ***funneled from tax payers*** *around the globe into laboratories of scientists who claim they know what is going to happen or they are trying to figure out what the problem is."* (Fox 2017)	*"What I find so frustrating about that fantasy alarmist approach to this is that it totally destroys any possibility whatsoever of a reasonable approach for* ***reasonable people like me*** *. . . .when people turn to the government, the* ***big government****, and throw money at it or think throwing money at that – this is actually going to solve problems."* (Fox 2019)

Note: Emphasis added to show distinctions between types of skepticism (underlined) and populist vs. non-populist identifiers (in bold).

Table 3. Types of climate skeptic frames by media outlet.

	Wall Street Journal	*Fox News*	*Breitbart News*	Total
Evidence				
Non-Populist	78 (8.9%)	627 (39.1%)	482 (35.7%)	1187 (31.0%)
Populist	5 (0.6%)	51 (3.2%)	45 (3.3%)	101 (2.6%)
Total	**83 (9.5%)**	**678 (42.3%)**	**527 (39.0%)**	**1288 (33.7%)**
Process				
Non-Populist	199 (22.8%)	302 (18.8%)	335 (24.8%)	836 (21.8%)
Populist	77 (8.8%)	252 (15.7%)	240 (17.8%)	569 (14.9%)
Total	**276 (31.6%)**	**554 (34.5%)**	**575 (42.6%)**	**1405 (36.7%)**
Response				
Non-Populist	437 (50.1%)	323 (20.1%)	183 (13.6%)	943 (24.6%)
Populist	77 (8.8%)	49 (3.1%)	65 (4.8%)	191 (5.0%)
Total	**514 (58.9%)**	**372 (23.2%)**	**248 (18.4%)**	**1134 (29.6%)**
Total				
Non-Populist	714 (81.8%)	1252 (78.1%)	1000 (74.1%)	2966 (77.5%)
Populist	159 (18.2%)	352 (21.9%)	350 (25.9%)	861 (22.5%)
Total	**873 (100.0%)**	**1604 (100.0%)**	**1350 (100.0%)**	**3827 (100%)**

Note: Cell percentages are calculated as the proportion of paragraphs of each type relative to the total number of skeptic paragraphs for that media outlet.

man-made global warming by the alarmist establishment over the last three decades may be based on a massive lie.' Other populist frames describe 'the people' taking a stand against greedy elites, like in a 2017 *Wall Street Journal* editorial board opinion that praised Texas for withstanding the 'Old Testament-style wrath' of climate activists. The editorial board concludes that Texans 'are used to being sneered at by coastal elites' and 'know the difference between an act of nature and progressive political opportunism.'

3.2. H2: process skepticism is a common form of climate skepticism

Consistent with H2, *process skepticism* emerged as a common type of climate skeptic frame, present in 36.7% of all paragraphs (compared to *evidence*: 33.7%, and *response*: 29.6%). Process skeptic frames were apparent across all three right-leaning outlets, with a higher concentration in more hyper-partisan outlets (*Wall Street Journal*: 31.6%, *Fox News*: 34.5%, *Breitbart*: 42.6%). For instance, Sean Hannity in 2019 referred to climate change as 'bad science' and 'nothing but hysteria to literally advance the political agenda of socialism' (*Fox News*). Governance processes were also challenged, like in a 2015 *Breitbart* article describing United Nations Conference of the Parties meetings as a 'giant bubble inside which only true believers are allowed' and claims that the 'conspiracy is. . .enriching crony capitalist fat cats at the expense of the world's poor.' Also notable is the more limited use of evidence skeptic frames in the *Wall Street Journal* (9.5%) compared to the other outlets (42.3% and 39%, respectively), consistent with the assumption that mainstream media during this period may have no longer perceived outright denial of human-caused climate change to be a sustainable argument.

3.3. H3: process skepticism is common in right-wing populist climate skeptical frames

Finally, and as hypothesized, *process* skeptic frames were the most common *populist* message (H3, Figure 1). Whereas *evidence* skeptic claims appeared in 11.7% of all populist frames and response skepticism appeared in 22.2% of populist frames, 66% of populist messages used *process* skeptic framing. This pattern held across all three right-leaning outlets. For example, in 2008, the *Wall Street Journal* put 'special blame' on Washington environmentalists who 'are engaged in a grand bait-and-switch' with taxpayers 'footing the subsidy bill.' Similarly, on *Fox News* in 2018, Kate Pavlich described 'working middle class and poor people' getting taxed by 'elites who say it's for the better' while 'bureaucrats around the world [are] doing more and more to try and take control, not just of the environment, but of people's lives under the guise of cleaning up the environment.' And in 2018, *Breitbart* concluded an article with:

> 'Science is never going to solve climate change because it was a never a scientific issue in the first place. Ultimately it will be decided by economics. In fact, it already has been. No matter what amount of bull children are fed by their teachers, no matter how much green propaganda gets invented by

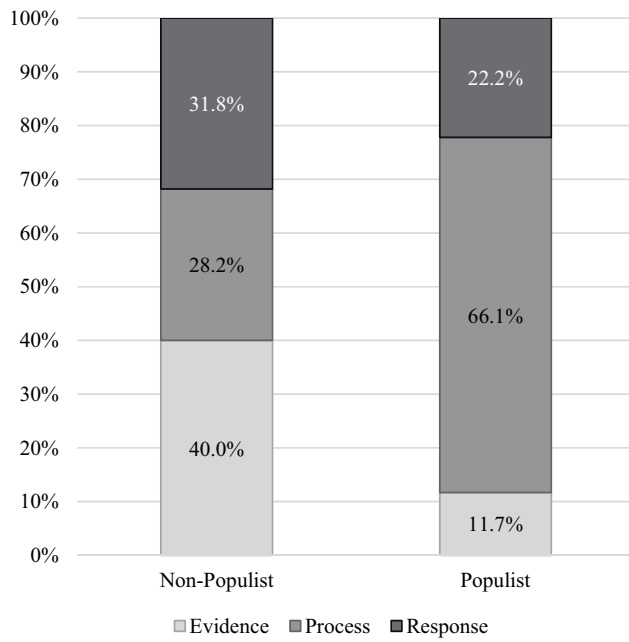


Figure 1. Percentages of non-populist and populist frames in right-leaning outlets by type of skepticism.

> scientists, tweaked by NGOs and disseminated by a compliant media, the brutal fact remains that the people of the world have long since made up their mind about "climate change." It's a scam and they're just not buying it.'

3.4. Exploratory analyses

As exploratory analyses, we also examined the prevalence of process skeptical populist messages among left-leaning outlets, and any potential change in the prevalence of such messages over time among right-leaning sources.

As noted in Footnote 1, climate skepticism was rare among left-leaning sources: out of 1,517 paragraphs, only 4% included a climate skeptic frame. Nevertheless, the prevalence of populist messages within that small sample was not substantially different than in the right-leaning sample: 10 of 57 (17.5%) paragraphs included populist frames (compared to 22.5% of right-leaning sources), and 7 of those 10 (70%) populist claims were process skeptic (compared to 66% of right-leaning sources). For example, a 2020 *Boston Globe* op-ed described climate research as dangerous to the public – akin to work on nerve gas or the hydrogen bomb – and 'being kept alive on life support by private donors.'

Looking at right-leaning sources, we note a decrease in evidence skeptic frames over time, as expected, from around 38% between 2008 and 2014 to less than 20% by 2020. We also observe that while there was a slight increase in populist frames over time (an average of 2% per year), such frames were present in all three right-leaning sources across the entire timespan of our sample. Process skeptic populist frames follow a similar trend over our sampled time frame.

4. Discussion

Right-wing populism, and its convergence with climate skepticism, is receiving increasing attention from both scholars and practitioners (Marquardt and Lederer 2022). Our results add critical nuance to this extant research by indicating that *process skeptic* populist frames are particularly common in right-leaning media.

Summarizing each research questions in turn, we first find that 1 in 5 climate skeptic frames from right-leaning sources contained elements of populism. Thus, regular consumers of these media are likely exposed to populist framing around climate change. As expected, this proportion of populist frames increased somewhat as we move from more mainstream news to hyper-partisan outlets, with the *Wall Street Journal* being the least populist right-leaning outlet to *Breitbart News* being the most populist. This supports research theorizing the role of

hyper-partisan news in building anti-establishment sentiment centered on the populist division between ordinary people and elite actors (see Rae 2021).

However, it is important to note that the difference across sources was only moderate (ranging from 18%-25.9% of frames), suggesting that these ideas are also common in more mainstream right-leaning outlets. Indeed, although climate skepticism in left-leaning outlets was very rare, when observed they included populist frames 17.5% of the time. The prevalence of populist frames across sources echoes Rooduijn (2014), who found no difference in populist messages between tabloid and elite media (newspaper) opinion sections in Western Europe. Moreover, populist frames were present across the entire timespan of our sample – pre-dating the rise of Donald Trump in U.S. politics. This aligns with work documenting the stylistic influence of sources like *Fox News* (Peck 2019) and the cultivation of 'elite populist' narratives in right-leaning media going back to the 1950s (Hemmer 2016).

Evidence, process, and response skepticism were each prevalent across right-leaning outlets. While the *Wall Street Journal* used considerably more response than evidence skeptic frames, the opposite pattern was present in *Breitbart* and *Fox News*. We also noted a decreasing trend in evidence skepticism over time across all three sources. The *Wall Street Journal*, in particular, moved from evidence skepticism towards the use of response frames, consistent with shifts in messaging among conservative think tanks (Cann and Raymond 2018). Significantly, though, process skepticism was the most common type of skepticism overall, indicating the growing importance of this new strategy for opposing climate policy.

Finally, and most importantly to the current analysis, we were interested in frames that were both populist and process skeptical in nature. As hypothesized, process skeptic claims were especially common populist frames. This result was consistent across all three right-leaning outlets, as well as among left-leaning sources. Given connections between populism and anti-intellectualism (Merkley 2020) as well as distrust in political institutions and foreign influence (Krange *et al.* 2021, Fiorino 2022, Huber *et al.* 2022), this facet of populist framing might have the most important consequences for policy opposition (Marquardt and Lederer 2022).

One common process skeptic populist frame is that elites have a self-serving motivation to present false evidence to the public. This motivation is often monetary, including 'green moneyed interests' (*Wall Street Journal* 2010), with various actors seeking hidden profit. This idea is illustrated in a statement by Conservative pundit Bill Cunningham on *Fox News* in 2016:

> There's no money in global cooling. There's money in global warming. Like in Watergate, follow the money. Think of the billions of dollars transferred from wealthier nations to poorer nations . . . It is a farce. It's not true. Sean Hannity, normal Americans know what's going on, and I'm normal.

Another common frame described an agenda to seize control of the people or the market. For instance, the *Wall Street Journal* described in 2015 'the grandiose claims of triumph in Paris' as representing 'self-interest of a political elite that wants more control over the private economy in the U.S. and around the world.' Likewise, Sean Hannity (*Fox News* 2019) described the Green New Deal as 'just an excuse to force their socialist vision on you, we, the American people. Climate change, global warming, global cooling, it's all- all of them rooted in advancing socialism, the belief that capitalism is inherently unjust and evil.'

Undermining elite expertise – both political and scientific – has clear implications for how individuals will evaluate downstream policy outcomes and the veracity of scientific claims. Survey research has shown distrust in environmental institutions to be related to anti-elitist attitudes, and strongly associated with climate skepticism (Krange *et al.* 2021). Thus, process skepticism might reinforce evidence or response skeptic attitudes and render them even more resistant to change. Moreover, process-oriented frames may help to preserve, or even increase, the audience for skeptic arguments against climate action, as individuals can hold process skeptic attitudes even while acknowledging the existence of anthropogenic climate change (Van Rensburg 2015). In this way, increased doubt in processes may continue to obstruct climate mitigation efforts (and explain continued resistance to climate policies) even as evidence of anthropogenic climate change accumulates and scholars mark corresponding decreases in evidence skepticism (Ballew *et al.* 2019).

Finally, understanding populist frames through the lens of process skepticism can clarify interwoven relationships between climate skepticism, populism, and conspiracies (Lockwood 2018, Hameleers 2021). *Conspiracies* reduce the complexity of issues by creating deterministic explanations focused on the near-infinite power of some group to manipulate outcomes for their own benefit (Silva *et al.* 2017). Membership in this conspiratorial group varies in our data: some frames focus on climate scientists who 'scare the world with tales of man-made climate doom' (*Breitbart* 2017), and elsewhere, scientists are portrayed as puppets manipulated by political puppet masters using the 'authority of science to shut down debate and justify their pre-existing preferences for more government spending, redistribution and control of the economy' (*Wall Street Journal* 2014). Often, frames in our data emphasize a conspiratorial relationship *between* mainstream climate science and the government:

> A 'climate scientist' is defined as someone with scientific credentials who is necessarily funded by a climate agency. Since research that might refute the consensus isn't funded, the 'vote' of climate scientists is biased . . . The switch from 'global warming' to 'climate change' isn't purely rhetorical but reflects the observation that warming didn't occur as the models said. Better salesmanship of an inferior product is hucksterism and fraud (Wall Street Journal 2018).

Exposure to populist conspiracy theories has been found to activate populist attitudes to a greater degree than exposure to populist ideas alone (Hameleers 2021). Because many climate change conspiracies seek to undermine the trustworthiness of elites and promote uncertainty or cynicism towards political and scientific processes, they fall under the umbrella of process skepticism. Process frames move discourse towards a 'paranoid style' (Hofstadter 1964) and may act as a gateway to more conspiratorial thinking (Van Prooijen and Jostmann 2013). Thus, increased attention to (populist) process skeptic frames can elucidate the impact of conspiratorial beliefs on climate attitudes.

4.1. Limitations and future directions

There are several limitations on our research that offer fruitful avenues for future study. First, our measurement of populist frames is narrow: We defined populist frames based solely on the presence of anti-elitism and/or people-centrism. This technique follows advancements in the measurement of populism (March 2018) and is a useful method for maintaining construct validity and preventing overestimation of populist frames (see Hameleers *et al.* 2019). Thus, we did not code as populist frames that refer to particular political parties or individual actors – a decision that could have led to an underestimation of the prevalence of anti-elitism. Indeed, media outlets and other actors might strategically invoke exemplars of broader supposed elite corruption (e.g. Al Gore or Greta Thunberg) to trigger populist responses despite the absence of explicitly populist rhetoric. Populist messages are also often characterized by other rhetorical factors such as emotional appeals or message simplicity; thus, our approach might miss other indicators of 'populist' frames (see Peck 2019). Our method may also obfuscate genre effects (i.e. the impact of printed vs. digital vs. televised communication), such that some outlets may use additional audiovisual cues to signal populism. Future work might consider these additional indicators, which may reveal higher levels of populist framing.

By focusing on a paragraph level of analysis, we also risk obscuring article-level patterns. Although the paragraph unit-of-analysis is common for content analysis and aligns with existing studies of populism in the media (see Rooduijn 2014), future analyses could take a more integrated approach to examining how communicators combine frames within their messages and the effect of those combinations on message effectiveness.

Our study is limited in its understanding of development of these frames over time. Future work could focus more on the development of populist climate skepticism in the context of broader populist communication and the growth of populist movements over time (see Hameleers and Vliegenthart 2020 for longitudinal work examining Dutch newspapers). It is important to understand whether populist climate skepticism emerged in tandem with populist framing in other issue spaces.

Finally, our study only documents the prevalence of these frames in media. Future work should examine how populist frames are diffused from media sources to the public, as well as how elite rhetoric is mediated by the press. Here, studies of populist framing by political elites are an interesting comparison: for instance, Küppers (2022) finds that populist framing by the Alternative for Germany radical right-wing party is largely response skeptical in nature. This may be because political parties, unlike media outlets, must make the case for their [lack of] policymaking, which may motivate criticism of policy actions of other parties. Future research could examine differences in populist rhetoric between political actors and the media.

Finally, it is critical that future research examine the effects of these messages on the public. As we describe, populist process skeptic frames may promote new forms of distrust that are more resistant to additional scientific evidence, elite consensus cues, or even improved climate policies. Moreover, populist process frames may induce resistance to future messages – similarly to 'inoculation theory' – where forewarning threats to one's beliefs prompts resistance to future persuasion (Compton 2013). If these phenomena are observed, future work should endeavor to develop counterstrategies to protect individuals from such bias induction.

5. Conclusion

In this paper, we document reliance on a distinctive form of climate skepticism—*process skepticism*—in populist media messages. These findings build on the broad literature documenting ever-mounting polarization of climate communication, which scholars warn will increasingly limit meaningful dialogue and problem solving on climate change (Hoffman 2011). The introduction of populist ideas recenters climate skepticism on a broader vision of a conspiring elite rather than questions of scientific certainty or policy efficacy that can be alleviated with additional research and development. As *Breitbart* described in 2015:

> The anti-science junk science behind Global Warming is beyond a farce. And don't think for a minute that the media doesn't know that. They choose to go along with the lies and scare tactics and the junk science in order to scare people into giving up even more control to the federal government — the rationale behind all the media's lies — from Trayvon Martin and Michael Brown to the Arctic ice.

This exemplifies how process skeptical populist frames contribute to an overall narrative of elites as bad actors, promoting policy inaction regarding anthropogenic climate change and beyond.

Notes

1. For the exploratory comparison case, we analyzed editorials and op-eds from the *Boston Globe*, *Chicago Tribune*, *Los Angeles Times*, and *New York Times*. We collected the first 50 articles of each via ProQuest Newstream resulting in a sample of 1,517 individual paragraphs. As expected, the vast majority of paragraphs (96%) from these sources did not contain any form of climate skepticism, so the final combined sample of skeptic paragraphs from the four left-leaning sources was 57.
2. The decisions to treat paragraphs as individual and mutually exclusive units of analysis are consistent with recommendations by Gilardi *et al.* (2021). They note, first, that paragraphs are the basic structuring element of news articles. As such, identifying a single core theme per paragraph prevents false equivalences between the primary use of one frame with a brief mention of another (e.g. a paragraph that largely focuses on the inefficacy of a climate policy but also fleetingly alludes to scientific uncertainty). Second, the decision to treat each paragraph as independent allows for better comparisons between sources where the length of the articles/transcripts varies significantly.
3. The primary coding was completed by an expert coder. To examine whether the expert coding produced consistent and reliable results, a second coder naïve to study hypotheses was trained to analyze a random sample of 20% of the articles. The second coder recovered a high proportion of the same constructs across both coding dimensions: populism (Krippendorff's alpha = .78) and skepticism type (Krippendorff's alpha = .85).

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Janel Jett http://orcid.org/0000-0002-0484-2948
Leigh Raymond http://orcid.org/0000-0003-4455-7583
Erin P. Hennes http://orcid.org/0000-0002-6897-3541

References

Albright, E.A. and Crow, D., 2019. Beliefs about climate change in the aftermath of extreme flooding. *Climatic Change*, 155 (1), 1–17. doi:10.1007/s10584-019-02461-2

Anderson, A., 2009. Media, Politics and climate change: towards a New research agenda: media, Politics and climate change. *Sociology Compass*, 3 (2), 166–182. doi:10.1111/j.1751-9020.2008.00188.x

Antilla, L., 2010. Self-censorship and science: a geographical review of media coverage of climate tipping points. *Public Understanding of Science*, 19 (2), 240–256. doi:10.1177/0963662508094099

Ballew, M.T., *et al*., 2019. Climate change in the American mind: data, tools, and trends. *Environment: Science and Policy for Sustainable Development*, 61 (3), 4–18. doi:10.1080/00139157.2019.1589300

Barr, R.R., 2009. Populists, outsiders and anti-establishment politics. *Party Politics*, 15 (1), 29–48. doi:10.1177/1354068808097890

Bolsen, T. and Shapiro, M.A., 2018. The US News media, polarization on climate change, and pathways to effective communication. *Environmental Communication*, 12 (2), 149–163. doi:10.1080/17524032.2017.1397039

Bonikowski, B., 2017. Ethno-Nationalist populism and the mobilization of collective resentment: Ethno-Nationalist populism. *The British Journal of Sociology*, 68 (S1), S181–213. doi:10.1111/1468-4446.12325

Bos, L., van der Brug, W., and de Vreese, C., 2010. Media coverage of right-wing populist leaders. *Communications*, 35 (2), 141–163. doi:10.1515/comm.2010.008

Boussalis, C. and Coan, T.G., 2016. Text-mining the signals of climate change doubt. *Global Environmental Change*, 36, 89–100. doi:10.1016/j.gloenvcha.2015.12.001

Boykoff, M.T. 2011. *Who speaks for the climate?: making sense of media reporting on climate change*. Cambridge, England: Cambridge University Press.

Boykoff, M.T., 2013. Understanding media representations of outlier views on climate change. *American Behavioral Scientist*, 57 (6), 796–817. doi:10.1177/0002764213476846

Cann, H.W. and Raymond, L., 2018. Does climate denialism still matter? The prevalence of alternative frames in opposition to climate policy. *Environmental Politics*, 27 (3), 433–454. doi:10.1080/09644016.2018.1439353

Capstick, S.B. and Pidgeon, N.F., 2014. What is climate change scepticism? Examination of the concept using a mixed methods study of the UK public. *Global Environmental Change*, 24, 389–401. doi:10.1016/j.gloenvcha.2013.08.012

Chong, D. and Druckman, J.N., 2007. Framing theory. *Annual Review of Political Science*, 10 (1), 103–126. doi:10.1146/annurev.polisci.10.072805.103054

Coan, T.G., *et al*., 2021. Computer-assisted classification of contrarian claims about climate change. *Scientific Reports*, 11 (1), 22320. doi:10.1038/s41598-021-01714-4

Compton, J., 2013. Inoculation theory. *The Sage Handbook of Persuasion: Developments in Theory and Practice*, 2, 220–236.

Dunlap, R.E., 2013. Climate change skepticism and denial: an Introduction. *American Behavioral Scientist*, 57 (6), 691–698. doi:10.1177/0002764213477097

Elsasser, S.W. and Dunlap, R.E., 2013. Leading voices in the denier choir: conservative columnists' dismissal of global warming and denigration of climate science. *American Behavioral Scientist*, 57 (6), 754–776. doi:10.1177/0002764212469800

Entman, R.M., 1993. Framing: toward clarification of a fractured paradigm. *The Journal of Communication*, 43 (4), 51–58. doi:10.1111/j.1460-2466.1993.tb01304.x

Entman, R.M., 2007. Framing bias: media in the distribution of power. *The Journal of Communication*, 57 (1), 163–173. doi:10.1111/j.1460-2466.2006.00336.x

Fiorino, D.J., 2022. Climate change and right-wing populism in the United States. *Environmental Politics*, 31 (5), 801–819. doi:10.1080/09644016.2021.2018854

Forchtner, B., 2019. Climate change and the far right. *Wiley Interdisciplinary Reviews Climate Change*, 10 (5), e604. doi:10.1002/wcc.604

Forchtner, B. and Balša Lubarda, B., 2023. Scepticisms and beyond? A comprehensive portrait of climate change communication by the far right in the European parliament. *Environmental Politics*, 32 (1), 43–68. doi:10.1080/09644016.2022.2048556

Gilardi, F., Shipan, C.R., and Wüest, B., 2021. Policy diffusion: the issue-definition stage. *American Journal of Political Science*, 65 (1), 21–35. doi:10.1111/ajps.12521

Hallin, D.C. and Mancini, P., 2004. *Comparing media systems: three models of media and Politics*. Cambridge, England: Cambridge University Press.

Hameleers, M., 2018. A typology of populism: toward a revised theoretical framework on the sender side and receiver side of communication. *International Journal of Communication*, 12, 2171–2190.

Hameleers, M., 2021. They are selling themselves out to the enemy! The content and effects of populist conspiracy theories. *International Journal of Public Opinion Research*, 33 (1), 38–56. doi:10.1093/ijpor/edaa004

Hameleers, M., Bos, L., and de Vreese, C.H., 2019. Shoot the messenger? The media's role in framing populist attributions of blame. *Journalism*, 20 (9), 1145–1164. doi:10.1177/1464884917698170

Hameleers, M. and Vliegenthart, R., 2020. The rise of a populist zeitgeist? A content analysis of populist media coverage in newspapers published between 1990 and 2017. *Journalism Studies*, 21 (1), 19–36. doi:10.1080/1461670X.2019.1620114

Hawkins, K.A. and Rovira Kaltwasser, C., 2018. Introduction. In: A. Hawkins, Kirk, E. Carlin, Ryan, L., Levente, K, Cristóbal Roviraeds. *In*: *The ideational approach to populism*. Routledge, 1–24.

Hemmer, N., 2016. *Messengers of the right: conservative media and the transformation of American Politics*. Philadelphia, Pennsylvania: University of Pennsylvania Press.

Hoffman, A.J., 2011. Talking past each other? Cultural framing of skeptical and convinced logics in the climate change debate. *Organization & Environment*, 24 (1), 3–33. doi:10.1177/1086026611404336

Hofstadter, R. 1964. The paranoid style in American politics. *Harper's Magazine*.

Howe, P.D., *et al*., 2015. Geographic variation in opinions on climate change at state and local scales in the USA. *Nature Climate Change*, 5 (6), 596–603. doi:10.1038/nclimate2583

Huber, R.A., 2020. The Role of Populist Attitudes in Explaining Climate Change Skepticism and Support for Environmental Protection. *Environmental Politics*, 29 (6), 959–982. doi:10.1080/09644016.2019.1708186

Huber, R.A., Greussing, E., and Eberl, J.-M., 2022. From populism to climate scepticism: the role of institutional trust and attitudes towards science. *Environmental Politics*, 31 (7), 1115–1138. doi:10.1080/09644016.2021.1978200

Jamieson, K.H. and Capella, J.N., 2008. *Echo chamber: rush Limbaugh and the conservative media establishment*. New York: Oxford University Press.

Jett, J. and Raymond, L., 2021. Issue framing and US state energy and climate policy choice. *The Review of Policy Research*, 38 (3), 278–299. doi:10.1111/ropr.12427

Jylhä, K.M. and Hellmer, K., 2020. Right-wing populism and climate change denial: the roles of exclusionary and anti-egalitarian preferences, conservative ideology, and antiestablishment attitudes. *Analyses of Social Issues and Public Policy*, 20 (1), 315–335. doi:10.1111/asap.12203

Karapin, R., 2016. *Political opportunities for climate policy: California, New York, and the federal government*. New York: Cambridge University Press.
Krange, O., Kaltenborn, B.P., and Hultman, M., 2021. 'Don't confuse me with facts'—how right wing populism affects trust in agencies advocating anthropogenic climate change as a reality. *Humanities and Social Sciences Communications*, 8 (1). doi:10.1057/s41599-021-00930-7
Kulin, J., Johansson Sevä, I., and Dunlap, R.E., 2021. Nationalist ideology, rightwing populism, and public views about climate change in Europe. *Environmental Politics*, 30 (7), 1111–1134. doi:10.1080/09644016.2021.1898879
Küppers, A., 2022. 'Climate-Soviets,''Alarmism,'and 'eco-dictatorship': the framing of climate change scepticism by the populist radical right alternative for Germany. *German Politics*, 1–21. doi:10.1080/09644008.2022.2056596
Leiserowitz, A.J.C., *et al*., 2022. *International public opinion on climate change, 2022*. New Haven, CT: Yale Program on Climate Change Communication and Data for Good at Meta.
Lockwood, M., 2018. Right-Wing Populism and the Climate Change Agenda: Exploring the Linkages. *Environmental Politics*, 27 (4), 712–732. doi:10.1080/09644016.2018.1458411
March, L., 2018. Textual analysis: the UK party system. *In*: K.A. Hawkins, R.E. Carlin, L. Littvay, and C.R. Kaltwasser, eds. *The ideational approach to populism: concept, theory, and analysis*. London, England: Routledge, 49–66.
Marquardt, J. and Lederer, M., 2022. Politicizing climate change in Times of populism: an Introduction. *Environmental Politics*, 31 (5), 735–754. doi:10.1080/09644016.2022.2083478
Marquardt, J., Oliveira, M.C., and Lederer, M., 2022. Same, same but different? How democratically elected right-wing populists shape climate change policymaking. *Environmental Politics*, 31 (5), 777–800. doi:10.1080/09644016.2022.2053423
Mazzoleni, G., 2008. Populism and the media. In: Daniele, D, D., McDonnell, Eds. *In*: *Twenty-first century populism: the spectre of Western European democracy*. New York: Palgrave Macmillan.
Merkley, E., 2020. Anti-intellectualism, populism, and motivated resistance to expert consensus. *Public Opinion Quarterly*, 84 (1), 24–48. doi:10.1093/poq/nfz053
Mudde, C., 2004. The populist zeitgeist. *Government and Opposition*, 39 (4), 542–563. doi:10.1111/j.1477-7053.2004.00135.x
Mudde, C. and Rovira Kaltwasser, C., 2012. Populism and (liberal) democracy: a framework for analysis. *In*: C. Mudde and C. Rovira Kaltwasser, eds. *Populism in Europe and the Americas*. New York: Cambridge University Press, 1–26.
Nadler, A., 2019. Populist communication and media environments. *Sociology Compass*, 13 (8). doi:10.1111/soc4.12718
Nadler, A., *et al*., 2021. Unmasking polarization: how conservatives make sense of COVID-19 coverage. *Columbia Journalism Review*.
Nelson, T.E., Clawson, R.A., and Oxley, Z.M., 1997. Media framing of a civil liberties conflict and its effect on tolerance. *The American Political Science Review*, 91 (3), 567–583. doi:10.2307/2952075
Norris, P. and Inglehart, R., 2019. *Cultural backlash: trump, Brexit, and Authoritarian populism*. New York: Cambridge University Press.
Peck, R., 2019. *Fox Populism: branding conservatism as working class*. Cambridge University Press.

Poortinga, W., *et al.*, 2011. Uncertain climate: an investigation into public scepticism about anthropogenic climate change. *Global Environmental Change*, 21 (3), 1015–1024. doi:10.1016/j.gloenvcha.2011.03.001

Rae, M., 2021. Hyperpartisan news: rethinking the media for populist politics. *New Media & Society*, 23 (5), 1117–1132. doi:10.1177/1461444820910416

Rigney, D., 1991. Three kinds of anti-intellectualism: rethinking Hofstadter. *Sociological Inquiry*, 61 (4), 434–451. doi:10.1111/j.1475-682X.1991.tb00172.x

Rooduijn, M., 2014. The mesmerising message: the diffusion of populism in public debates in Western European media. *Political Studies*, 62 (4), 726–744. doi:10.1111/1467-9248.12074

Rooduijn, M. and Pauwels, T., 2011. Measuring populism: comparing two methods of content analysis. *West European Politics*, 34 (6), 1272–1283. doi:10.1080/01402382.2011.616665

Silva, C., Bruno, F.V., and Littvay, L., 2017. The elite is up to something: exploring the relation between populism and belief in conspiracy theories. *Swiss Political Science Review*, 23 (4), 423–443. doi:10.1111/spsr.12270

Taggart, P., 2004. Populism and representative politics in contemporary Europe. *Journal of Political Ideologies*, 9 (3), 269–288. doi:10.1080/1356931042000263528

Van Prooijen, J. and Jostmann, N.B., 2013. Belief in conspiracy theories: the influence of uncertainty and perceived morality. *European Journal of Social Psychology*, 43 (1), 109–115.

Van Rensburg, W., 2015. Climate Change Scepticism: A Conceptual Re-evaluation. *SAGE Open*, 5 (2), 1–13. doi:10.1177/2158244015579723

Whitmarsh, L., 2008. Are flood victims more concerned about climate change than other people? The role of direct experience in risk perception and behavioural response. *Journal of Risk Research*, 11 (3), 351–374. doi:10.1080/13669870701552235

YouGov. 2022. *Trust in media 2022*. https://today.yougov.com/topics/politics/articles-reports/2022/04/05/trust-media-2022-where-americans-get-news-poll