

**EXPANDING SKEPTICISM: POPULIST CLIMATE CHANGE  
COMMUNICATION IN THE U.S. MEDIA**

by  
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*Dedicated to Sasha*

*“It’s very dramatic when two people come together to work something out. It’s easy to take a gun and annihilate your opposition, but what is really exciting to me is to see people with differing views come together and finally respect each other.”*

*– Fred Rogers*

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## TABLE OF CONTENTS

LIST OF TABLES .....	9
LIST OF FIGURES .....	10
ABSTRACT.....	11
CHAPTER 1. INTRODUCTION .....	12
Populism, Framing, and the Climate Crisis .....	14
Goals of this Study .....	17
Organization of the Study .....	19
CHAPTER 2. POPULISM IN CLIMATE COMMUNICATION: THEORY & DEFINITIONS	22
What do we know about Populism?.....	25
Defining Populism .....	25
Populist Attitudes and Populist Communication .....	29
Media Populism .....	34
Why Populism and Climate Change? .....	36
Right-wing Populism and Climate Change .....	37
Climate Communication and Populism .....	40
CHAPTER 3. EXPANDING SKEPTICISM: POPULISM IN CLIMATE CHANGE	
COMMUNICATION.....	44
Defining Populism .....	45
Populism in U.S. Climate Communication.....	47
Climate Change Skepticism.....	50
Climate Skepticism & Populism.....	52
Hypotheses.....	55
Research Design & Method .....	59
Mainstream News – Newspaper Opinion Pieces .....	60
Partisan News Programing – Fox News Network .....	61
Content Analysis & Measuring Populism .....	61
Results.....	67
Prevalence Populist Framing – H1 .....	69
Types of Skepticism – H2.....	70
Intensity & Topic Differences – H3 .....	73

Discussion & Conclusions .....	74
CHAPTER 4. THE EFFECTS OF POPULIST PROCESS SKEPTIC FRAMING ON CLIMATE ATTITUDES.....	80
Qualitative Text Analysis: Process Skepticism & Populist Framing .....	82
Secondary Analysis of Media Sample .....	84
Key Theme: Climate Change as a Religion .....	86
Key Theme: Climate Change as a Means of Control.....	88
The Role of Conspiracy Theories.....	89
Religion, Control, & Conspiracy: Why should this matter? .....	91
Survey Experiment: Populist Attitudes, Partisanship and Framing.....	92
Populism & Partisanship .....	94
Framing Effects .....	95
Populist Framing Effects: A Counterargument .....	98
Exploratory Analysis: Trust & Conspiracy .....	99
Experimental Design .....	102
Conditions & Measures .....	103
Framing Conditions.....	103
Climate Attitudes.....	105
Populist Attitudes .....	106
Conspiracy and Trust .....	107
Method.....	108
Experimental Results .....	110
Partisanship and Populism .....	110
Populist Framing Condition .....	112
Trust & Conspiracy.....	115
Discussion .....	119
Conclusions.....	123
CHAPTER 5. CONCLUSIONS AND FUTURE DIRECTIONS .....	126
Overall Results of Studies.....	127
Conclusions: Populist Framing and Climate Skepticism.....	128
Future Research: Patterns of Populist Skeptic Framing .....	129

Future Research: Links between Skeptic Frames and Attitudes.....	131
Moving Forward: Responding to Populist Frames? .....	132
APPENDIX A. CONTENT ANALYSIS CODING .....	135
Article Level Coding.....	135
Paragraph Level Coding .....	135
Codebook .....	136
APPENDIX B. CONTENT ANALYSIS DESCRIPTIVE RESULTS .....	140
APPENDIX C. SURVEY ITEMS & EXPERIMENTAL CONDITIONS .....	144
APPENDIX D. EXPERIMENTAL ANALYSIS .....	155
REFERENCES .....	160



## LIST OF TABLES

Table 2.1: Identifying Populist Communication and Attitudes .....	33
Table 3.1: Article Topics .....	62
Table 3.2: Skeptical vs. Convinced Logics.....	63-64
Table 3.3: Skeptic Claims .....	66
Table 3.4: Populist Dimensions .....	66
Table 3.5: Context of Populist Skeptic Frames .....	74
Table 4.1: Experimental Conditions .....	105
Table 4.2: Comparison of MTurk Sample to U.S. Census/GSS Information.....	109
Table 4.3: Intercorrelations of Populist Dimensions, Trust, & Conspiracist Ideation.....	115

## LIST OF FIGURES

Figure 3.1: Skeptic vs. Convinced by Source and Article .....	68
Figure 3.2: Skeptic Frames by Paragraph .....	69
Figure 3.3: Proportion of Populist vs. Non-Populist Skeptic Frames by Paragraph.....	70
Figure 3.4: Populist Skeptic Frames by Paragraph .....	72
Figure 3.5: Topic Differences by Article .....	74
Figure 4.1: Density Plot of Populist Attitudes by Party.....	110
Figure 4.2: Climate Attitudes by Partisanship and Populist Attitudes .....	111
Figure 4.3: Belief in Climate Change by Partisanship and Treatment .....	113
Figure 4.4: Policy Support by Partisanship and Treatment .....	113
Figure 4.5: Climate Attitudes based on Populist Attitudes and Treatment Condition.....	114
Figure 4.6: Climate Attitudes by Partisanship and Conspiracist Ideation .....	116
Figure 4.7: Information Trust by Treatment Condition and Partisanship.....	117

## ABSTRACT

Motivating the political will necessary for fair and ambitious climate change policies is significantly complicated by the rise of populism. Right-wing populist communication targets civil servants and intellectuals as conspirators furthering a climate agenda for their own self-interest. Yet, despite the real world implications of populist communication, more work is needed to both (1) understand the presence of populist frames in media communication on climate change and (2) untangle the relationships between the far-right and diverse forms of climate skepticism. Completing a content analysis of newspaper opinion pieces and *Fox News* programing between 2008 and 2020, I find that populist skeptic frames are an important part of media communication on climate change in both the *Wall Street Journal* and *Fox News*. Additionally, I find that populist skeptic frames most commonly use process skeptic claims, leveraging conspiratorial language to describe collusion between the government and scientists to falsify the severity of climate change and control the public for their own gain. Using a survey experiment, I find that higher populist attitudes are negatively associated with both belief in climate change and support for climate mitigation policies among Republicans. Conversely, I do not find a significant effect of exposure to a populist process skeptic frame, prompting the need for more work on the connections between populist skeptic framing and climate change attitudes.

## CHAPTER 1. INTRODUCTION

“The continued dithering to address climate change is no longer about the lack of scientific evidence, but directly tied to a lack of political will.”

Kristina Dahl, Union of Concerned Scientists<sup>1</sup>

In 2021 alone, wildfires raged around the world, a ‘heat dome’ led to record high temperatures in many areas of the U.S. and Canadian west coast, and Typhoon Surigae intensified into one of the strongest typhoons ever recorded. Alongside these real-world events were increasingly alarmed calls from leading climate scientists about the “unprecedented” and likely “irreversible” climate changes caused by humans (IPCC, 2021). Despite this, political action remains marked by an absence of political ambition in addressing the climate emergency. This lack of political will can be partially understood through the rise of political forces opposing climate action by spreading false narratives of scientific uncertainty, the inefficacy of government action, and the economic consequences of climate policies.

Right-wing populist movements, in particular, have become a powerful global force in opposition to climate change action. Right-wing populism (RWP) has increased in many Western democracies, paralleling both the rising threat of catastrophic climate change and growing political challenges to mitigation efforts (Inglehart & Norris, 2016; Kulin et al., 2021). Right-wing parties are often skeptical of climate change and oppositional towards climate policies, and research suggests that right-wing populism “may constitute a significant obstacle to efforts to mitigate climate change” (Kulin et al., 2021, 2; see also Schaller & Carius, 2019). This is exemplified by former President Trump reversing nearly a decade of climate policy progress with an unprecedented wave of populist rhetoric in the United States.

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<sup>1</sup> Quoted in *The Guardian*, August 9, 2021

Given the increasing real-world consequences of the congruence between right-wing populism and climate skepticism, scholars have recognized the comparative dearth of research on the relationships between RWP and climate skepticism compared to that looking at more traditional liberal-conservative ideologies (Forchtner, 2019; Lockwood, 2018). Seeking to rectify this knowledge gap, scholars theorize that climate change—given its distant, technical, and elite-driven nature—may serve a symbolic role in RWP by highlighting the antagonistic relationship between the people and elites (Forchtner, 2019; Lockwood, 2018).

With this theoretical work, research has increasingly examined the relationships between right-wing populism and climate skepticism, to a large extent focusing on the role of populist *attitudes* in the public (Huber et al., 2020; Kulin et al., 2021). Populist attitudes are an important part of understanding the growth of RWP’s influence on climate attitudes and outcomes. Yet, focusing on attitudes alone ignores how populist *communication* may act as a critical antecedent connecting latent populist attitudes to climate skepticism. Additionally, existing work has not yet considered the role of the media in the spread of populist climate skeptic messages and how and to what degree these populist messages have entered mainstream media outlets.

Considering the significant threat of climate change without rapid and substantial policy action, it is critical to explore different answers for why climate skepticism—and the related lack of support for policy action—persists in the United States. Although we know increasingly more about how populist attitudes are linked to climate skepticism, how did this link form and how have populist ideas spread through mainstream channels of communication? Additionally, what do populist messages promoting climate skepticism look like? As Forchtner (2019) describes, narratives of the environment and climate change are diverse in the far-right and we need more work considering the potentially multifaceted nature of climate skepticism stemming from

populist ideas. Without understanding the different ways far-right populist messages are framing climate change, it is difficult to formulate solutions for promoting successful future communication. From these gaps, and building on existing theoretical work, my dissertation asks: *what role do populist frames play in climate skeptic media communication and does populist skeptic framing influence climate policy attitudes?*

### **Populism, Framing, and the Climate Crisis**

*Populism* characterizes the fundamental cleavage in society as between the ‘pure people’ and the ‘corrupt elite’ (Mudde, 2004). As part of this definition, populism has been described as consisting of several main dimensions. The most consistent dimensions in the literature are that populism is both (1) people-centered and (2) anti-elite (Hawkins & Kaltwasser, 2018; Rooduijn, 2014). Building from these two dimensions, scholars also highlight that populist ideas of politics reflect the notion of popular sovereignty (Mudde, 2004) and that the distinction between the people and elites is moralistic, often described as a Manichean outlook (Castanho Silva et al, 2019). From this moralistic stance, populist messages draw on people-centered and anti-elite ideas to motivate skepticism in institutions and politicians, accusing intellectuals of “exercising undue influence on politics in the pursuit of their own self-interest” (Bonikowski, 2017, S184).

While understudied in the context of climate change, researchers increasingly draw attention to the media’s role in the spread of populist ideas and related political parties (e.g. Krämer, 2014; Hameleers et al., 2019). And with this, scholars argue that identifying populism in the media is critical for understanding the diffusion of populist messages broadly as “an exclusive focus on party politics would provide a limited account of the spread of the populist message” (Rooduijn, 2014). Other scholars highlight both the media’s role as a “favorable stage”

for populist actors—given their larger-than-life media presence—and how the media can interpret issues along the lines of a populist battle between the good people and culprit elites (Bos & Brants, 2014; Hameleers et al., 2019).

In other words, the media is more than just a platform for populists to spread their messages. Krämer (2020) highlights that research increasingly recognizes broader groups of actors behaving in populist ways, including the media. With this, scholars have explored the different ways the media can *be* populist or *contribute* to populism’s growth, either through the electoral success of populist parties or the spread of populist ideas and attitudes (Krämer, 2020). Reinemann (2020) describes populism *through* the media (e.g. how even critical commentary on populist ideas can raise their profile or legitimize populist positions) and populism *by* the media (e.g. when the media uses populist frames in their reporting). As Krämer (2020, 17) describes, the relationship between the media and populist ideas can be complicated as “media outlets or individual journalists may evaluate populists and populist politics very critically while at the same time reproducing the populist framing of issues.”

*Framing* is understood as the power of the media to represent issues through particular lenses (frames) that direct public attention and influence public opinion (Nelson et al., 1997). Framing can shape public perceptions, particularly when attitudes are not yet fully developed, by strategically emphasizing particular factors relative to others (Chong & Druckman, 2007; Druckman & Lupia, 2017). This emphasis approach to framing highlights how characterizing an issue or a particular course of action can give them meaning and provide a method of understanding what occurred or what *ought* to be done (Druckman, 2001; Borah, 2011).

Scholars have long considered the role of framing in shaping both public attitudes towards climate change and climate policy (in)action. Scholars, for example, point to climate

scientists' early value-neutral focus on the factual complexities of scientific developments to understand the failure in the U.S. to take significant action on climate change mitigation (Nisbet & Mooney, 2007). Those in opposition to action only needed to generate public uncertainty towards the consensus of climate science to limit climate mitigation policy development and implementation (Nisbet & Mooney, 2007). And the media, due to norms of impartiality, equally covered both sides, validating the skeptic minority and creating a narrative of "scientific debate" (Anderson, 2009; Boykoff & Boykoff, 2007) which is connected to both reduced belief in the urgency of climate change as a problem and delayed political action (Dunlap, 2014; Oreskes & Conway, 2010).

Building from this framing context, new oppositional populist frames may expand on existing patterns as populism is 'thin-centered' and often applied to other thicker constructs (Mudde, 2004). For example, populist climate skeptic framing may build on science uncertainty framing by questioning the intentions and trustworthiness of scientists (Motta, 2018) and the scientific process, rather than the science itself. And, even without limiting belief in anthropogenic climate change, the addition of new people-centered, anti-elite rhetoric may limit support for climate action by increasing skepticism in both the policymaking process and potential policy responses to the climate crisis.

The growth of populist rhetoric in the climate change issue space potentially links climate action with a larger narrative of distrust in elites and doubt in the political system. This movement broadens the base of potential skepticism beyond scientific arguments and links climate action proponents with a class of distrusted elites that are perceived to be working against the will of the people. Forchtner (2019) describes how populist rhetoric may contribute to the increasingly multifaceted nature of climate skepticism by motivating suspicion of the elite-



driven political processes around climate action. This observation connects to Van Rensburg's (2015) conceptualization of climate skepticism that features "process skepticism" (skepticism towards the scientific and political processes behind climate science) and "response skepticism" (skepticism towards policy responses) as growing forms of skepticism *in addition to* "evidence skepticism" (skepticism towards scientific evidence of climate change).

### **Goals of this Study**

This study seeks to add to the literature on climate change skeptic framing and the developing scholarship linking right-wing populism to climate change opposition by considering how the media may act as a purveyor of populist skeptic frames. The nature of populist framing in media communication provides a vital link in understanding how populist attitudes have become connected to climate change skepticism. Additionally, I follow Forchtner's (2019) call for more work exploring the diversity of skepticism in the far-right by considering the role of process, response, and evidence skeptic framing in these populist messages. And ultimately, this study seeks to lay the foundations for understanding the effects of populist skeptic frames on individual's climate attitudes, connecting the supply and demand sides of populist climate skepticism.

To this end, I first ask: *what role does populist framing play in climate skeptic media communication (RQ1)?* To investigate this research question, I turn to a content analysis of both mainstream newspaper opinion pieces and *Fox News* programing. From research on media populism emphasizing the role of the media as both a producer and transmitter of populist frames (see Krämer, 2014), I expect that populist skeptic frames will appear in all media sources. Although this literature emphasizes that both populist and non-populist sources may spread

populist ideas, scholars of media populism also emphasize that the frequency of populist messages may vary. Namely, populist frames are likely more common in media sources that distance themselves from the mainstream political establishment and have a more receptive audience base (e.g. congruence between latent populist demands and the supply of populist frames). That receptive audience is more likely to be right leaning, given the connection between climate change skepticism and both traditional conservatism and right-wing populist attitudes. In the U.S., the right-leaning TV news media is dominated by *Fox News*. From these factors, I expect that *Fox News* will have a higher proportion of populist skeptic frames compared to more mainstream newspaper sources.

Building on both Van Rensburg's (2015) typology and Forchner's (2019) description of the diversity of right-wing climate skepticism—I expect that right-wing populist climate communication in the U.S. will use multiple types of skepticism in its framing of climate change. But, like the frequency of populist frames overall, I do not expect all three types of skeptic frames to be equally applied in populist messages. Because populist frames will likely build upon the long-standing scientific debate, one might expect traditional evidence skeptic arguments against climate change to be common in populist communication. However, I argue that one of the primary ways populist skeptic messages will add to existing framing patterns is the use of frames describing conspiracies of elites acting against the good of the people and questioning the scientific and political processes around climate change action.

Conspiracy is often seen as a variation of populism (though they are not mutually exclusive) and conspiratorial frames outline the *intentional* malfeasance of elites and their manipulation of the public for their own goals (Castanho Silva et al., 2017). In the case of climate change, this includes scientists manipulating data for government funding and a “climate

agenda” seeking to control the public through draconian climate mitigation policies. These climate conspiracies directly connect to Van Rensburg’s (2015) description of process skeptic frames that question the scientific and political processes of mainstream climate science. And I expect this understudied form of climate skepticism to be prevalent in populist skeptic frames.

In addition to examining the pervasiveness of populist skeptic framing, this project also asks: *how do populist skeptic frames influence individuals’ climate attitudes (RQ2)?* Using the results of the media content analysis as a guide, I examine this question using an experimental design. First, I seek to replicate the relationships between populist attitudes, party identification, and skeptic attitudes studied by scholars like Huber et al. (2020). Like Huber et al. (2020), I expect that the relationship between populist attitudes and climate skepticism will not be independent of partisanship. But rather, I test whether the populist process skepticism present in media will influence individuals’ attitudes towards climate change and related support for policy action. Although I expect this framing may be influential, I also pose an alternative argument that the existing presence of this framing in the media suggests that populist attitudes (at least in the right-wing) have already been activated, thus limiting the effect of additional populist process skeptic framing.

### **Organization of the Study**

My analysis continues as follows. In Chapter 2, I review the relevant literature and establish (1) a working definition of populism, (2) the role of the media in populist communication, and (3) the connections between climate skepticism and right-wing populism.

Then, in Chapter 3, I use a media content analysis to examine how populist skeptic framing around climate change differs from non-populist framing by changing the narrative of

climate skepticism from purely focusing on science (evidence skepticism) to questioning the trustworthiness of scientists, elites, and the political process (process skepticism). Analyzing both newspaper opinion pieces and *Fox News* programming between 2008-2020, I assess the presence of populism and different types of skeptic claims using Van Rensburg's (2015) taxonomy. I find that—while populist skeptic frames are less common than non-populist skeptic frames—populist skeptic frames play a noteworthy role in media communication on climate change, particularly in the *Wall Street Journal* and *Fox News*. In line with my expectations, populist frames are most likely to focus on process skeptic critiques rather than evidence-based arguments. And I provide preliminary evidence that populist skeptic frames may intensify skeptic arguments from uncertainty towards climate change to complete rejection.

In Chapter 4, building on the insights of the content analysis, I examine the influence of populist skeptic frames on individuals' attitudes towards climate change and potential climate action. Completing a secondary analysis of the process skeptic frames identified in the media sample, I highlight the common presence of themes depicting climate change as a religion and a means of controlling the public. And, as expected, I find that conspiracies are consistently used in framing climate change as a populist-style struggle between the good people and evil elite.

Using the results of the content analyses, I develop a survey experiment testing the effects of this type of framing on individual's climate attitudes. I find that, similarly to Huber et al. (2020), the relationship between populist attitudes and climate skepticism is not independent of partisanship. Additionally, I find little effect of framing climate change using the identified process skeptic frames on individual's attitudes towards climate change or related policies. Although these are preliminary results, this might indicate either that climate attitudes are

already entrenched or that populist attitudes are already activated in this context, thus additional frames have little effect.

Lastly, I conclude with Chapter 5 and discuss the major findings of this study and implications of the increasing role of right-wing populism in climate communication. Overall, this work contributes to ongoing efforts in understanding the role of the media in populist communication, the nature of populist skeptic frames in the context of climate change, the disentangling of the effects of populism from the effects of party, and how common populist skeptic frames may or may not be influencing public opinion on climate change.

## CHAPTER 2. POPULISM IN CLIMATE COMMUNICATION: THEORY & DEFINITIONS

CUNNINGHAM: Monica and I understand one simple thing. 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 nation to poorer nations. Think of the control of fossil fuels and natural gas and pipelines. Pipelines are great. They're safe. No matter what happens in North or South Dakota, either transport the stuff by rail or by truck or pipeline. Pipelines are great. They should be used more often. There's no money in global cooling. The money is in global warming. And ching-ching-ching, Al Gore is now a billionaire because of manmade global warming. It is a farce. It's not true. Sean Hannity, normal Americans know what's going on, and I'm normal.

HANNITY: Got to let you both go. Love you both. Bill Cunningham, you're a great American. God bless us and God bless the United States of America.

*Fox News, 2016*

Scientists have warned, for decades, of the planet-wide dangers of unmitigated climate change. As a global grand challenge, significant political will is needed—across scales of government—to coordinate the increasingly ambitious climate change policies necessary to limit catastrophic global warming. Yet, even as the need for action grows, broad public acceptance and support for climate policies is challenged by the current political landscape. Action on climate change requires substantial trust in scientists and policymakers at a time when the public is battered by messages *purposefully* designed to inhibit such confidence, like those emerging in far-right resistance to climate change. In the U.S., the increasing relationship between far-right ideologies and climate change skepticism is particularly apparent in the rise of right-wing populist communication in opposition to climate policy action. Donald Trump, for example, countered the broader movement away from science “denialism,” doubling-down on both skeptic frames and a broad anti-intellectual narrative, calling researchers “idiots” and suggesting climate scientists are working for the Chinese (Motta, 2018). In addition, as part of his presidential

campaign, Trump drummed up populist appeal by targeting economically struggling parts of the nation promoting a pro-coal message and a promise to “put miners back to work.”

Messages like those deployed by Trump serve to shift the discussion away from the consequences of inaction on climate change towards the costs of action, particularly if those costs are perceived as unequally distributed or focused on the working class. Additionally, the nature of this opposition to policy innovation is not so much founded on belief, but *doubt*. The power of doubt in limiting public support for climate action has been emphasized by scholars looking at the longstanding, manufactured debate in the U.S. concerning whether the science is truly “settled” on climate change (Oreskes & Conway, 2010).

Right-wing populism has the potential to build on these doubts and combine them with larger perceptions—from the populist perspective—of a “good” vs. “evil” battle between the public and elites. In doing so, populist messages may further embroil climate change in larger societal divisions and both diversify and intensify the skeptic messages driving opposition. For example, populist messages focusing on conspiracies between scientists and/or political elites may generate uncertainty about both the scientific processes and international agreements that guide climate action. And the destruction of confidence in the government and elites to distribute costs and benefits equitably may be particularly effective in arenas like climate change where the costs of policies appear clearly defined and immediate while the costs of inaction seem uncertain and distant.

Scholars looking at far-right ideologies highlight “national sovereignty, the influence of anti-elitism/populism and a...propensity for conspiracy theories” as vital factors in understanding right-wing resistance to climate action (Forchtner, 2019, 6). Likewise, Lockwood (2018) emphasizes how climate change may play a symbolic role in the antagonistic relationship

between ‘the people’ and ‘the cosmopolitan elite.’ However, despite excellent work examining the relationships between right-wing populism and climate skepticism, much of this work is still focused on overt partisan rhetoric (e.g. the stylistic techniques of persuasive speech used by populist leaders in speeches and party platforms) and ignores how these communication patterns may have entered more mainstream media outlets. Likewise, while scholars have highlighted the relationships between populist *attitudes* and climate skepticism, we know less about the effects of populist *communication* on public attitudes towards climate change and related policy action.

This study seeks to fill these gaps and expand on theoretical work considering the heterogeneous nature of climate skepticism in the context of right-wing communication and the potential “interplay between, on one hand, ‘evidence skepticism’ and, on the other, ‘process’/‘response skepticism’” Forchtner (2019, 7). I explore both *why* populist skeptic frames have become a part of climate change opposition messages, and *how* these frames appeal to different centers of skeptic logic. And following, this study examines the potential impact of the identified populist skeptic framing on public attitudes. In this chapter, I place these goals within the current state of the literature. First, in order to understand the role of populist framing in climate change policies, I explore the existing debates around populism and populist communication. Then, I turn to identifying work connecting climate skepticism to populism and highlight research demonstrating the potential importance of populist skeptic frames in the climate context.



## What do we know about Populism?

### Defining Populism

Almost every study of populism begins with some description of populism as a “contested concept” (Hawkins & Kaltwasser, 2018). Taggart (2002) describes populism as “one of the most widely used but poorly understood political concepts in our time.” In part, this conceptual confusion stems from a disconnect between colloquial uses of the term (i.e. media labeling of “populist” politicians and groups) and the increasing efforts for theoretical clarity by leading populist scholars. As Müller (2016) describes, “populism” is not synonymous with an “angry” public or even “anti-establishment” ideas—as it is commonly linked to in popular reference. Although, in practice, these ideas and emotions can be a part of the performance of populist politics, populism is distinct from demagoguery and pejorative descriptions of “angry politics” (Hawkins & Kaltwasser, 2018).

Additionally, the ongoing conceptual battle stems from theoretical disagreements of what populism *is* at its core. Some scholars focus on the political-strategic elements of populist leaders and the organizational features of populist parties (e.g. a strong leader and grass-roots mobilization) (Weyland, 2001). Others emphasize populist economic policies around wealth redistribution and economic growth that, while popular, are often unsustainable with short-term benefits and long-term consequences (Acemoglu et al., 2013). Although these debates are ongoing, a growing consensus has formed around the “ideational approach” to defining and studying populism. In this approach, populism is defined in minimal terms as “a unique set of ideas” that “understands politics as a Manichean struggle between the reified will of the people and a conspiring elite” (Hawkins & Kaltwasser, 2018, 3; see also Hawkins, 2009).

The benefits of the ideational approach are two-fold. First, this approach simplifies many of the ongoing conceptual conflicts, and in particular, the debate around whether populism should be classified as an ideology or a discourse. One of the most widely cited definitions of populism comes from Mudde (2004, 543) and defines populism as a ‘thin-centered ideology.’ This idea of a “thin centered” ideology stems from Freeden’s (1996) efforts to distinguish ideologies that are limited in both conceptual and programmatic scope. Importantly, this “thinness” distinguishes populism from other “thick-centered” or full ideologies like liberalism, socialism, nationalism, or fascism that often have much more far-reaching views around social transformation. Canovan (1982) highlights the historical lack of a unified “self-conscious international populist movement” to underscore both the difference between populism and other ideologies and why so many different meanings have been attached to the term.

As Stanley (2008, 107) describes, “the thinness of populism ensures that in practice it is a complementary ideology: it does not so much overlap with as diffuse itself throughout full ideologies.” Taggart (2002) referred to this lack of core ideological values as populism’s “empty heart.” Freeden (1996) uses a ‘morphological approach’ to underscore how treating populism as a ‘thin centered’ ideology helps theorize and explain populism’s tendency to ‘morph’ based on context and attach to host ideologies (Mudde & Kaltwasser, 2012; 2013). Using this approach, scholars in this camp have classified different sub-types of populism—such as exclusionary and inclusionary populism—based on how populist ideas have combined with other sets of ideas or ideologies (in this case nationalism and socialism respectively) (Mudde & Kaltwasser, 2013).

By contrast, other scholars reject the idea of populism being classified as an ideology, putting greater emphasis on the limited scope and complexity of populism relative to other, fuller ideologies (Azalides, 2016). From this, scholars have described populism as a world view, a

style, or a form of political mobilization (Gidron and Bonikowski, 2013; Hawkins, 2009; Moffitt, 2016). Building on work by scholars like Ernesto Laclau (1977, 1980) and the Essex School, Azalides (2016) reasons that definitions of populism should drop the ideological clause and conceptualize populism instead as a discursive frame. Thus, populism becomes a discourse that invokes “the supremacy of popular sovereignty to claim that corrupt elites are defrauding ‘the people’ of their rightful political authority” (Azalides, 2016, 96).

Although the ideational approach does not resolve these differences, it recognizes that the distinctions made by these two groups are very slight in application. As Hawkins and Kaltwasser (2019, 5) describe, “both options assume that populism is a type of idea that is distinct from classical ideology, in that it is not the product of conscious elaboration and tends to have low programmatic scope.” With this, ideational scholars highlight that the critical distinction is that populism is not a full ideology or even a true attitude, as populist ideas are not “consciously held” as one might hold views on gay marriage or abortion (Hawkins & Kaltwasser, 2018). Instead, drawing from psychological literature, ideational scholars argue that populist attitudes (and similarly populist ideas) in the public behave more as a latent demand or disposition that must be activated by discursive cues or appropriate context (Busby et al., 2019; Cesario et al., 2010; Tett & Guterman, 2000).

The second benefit of following scholars like Wuttke et al. (2020) and Rooduijn (2019) in adopting the ideational approach, is that it offers a practical way to both theorize and study populism across contexts. The ideational approach has proven to be less time dependent than its structuralist and economic counterparts, and related scales have been validated cross-culturally as well (Castanho Silva et al., 2019). And, most valuable for the purposes of this study, this ideational approach (i.e. treating populism as a set of ideas) supports the measurement of both

the supply- and demand-side of populism (Hawkins & Kaltwasser, 2018). Populism—in the ideational tradition—is seen as a continuous variable rather than an “either-or” dichotomous option where individuals are either populist or not. And populism can refer to ideas, actions, and agents so long as the core populist ideas (anti-elitism and people-centrism) are present. From this, the ideational approach has been successfully applied to both understanding populist attitudes and populist communication as it suggests that actors can use and endorse populism to a greater or lesser extent, and that this usage can fluctuate (Rooduijn, 2019).

So, from this rapidly expanding literature, I draw a working definition of populism as a set of ideas highlighting the antagonistic relationship between the people and elites, and centering on the moralistic struggle of the people to reclaim their rightful political authority (Hawkins & Kaltwasser, 2018; Mudde, 2004). Put differently, populism *simplifies* political conflicts into a central division between “the people” and the power bloc of elite actors (Laclau, 2005). As part of this definition, in addition to people-centrism and anti-elitism—which are almost universally agreed upon to be *the* core concepts—scholars often add supplementary concepts, mainly a Manichean outlook and/or popular sovereignty (March, 2019).<sup>2</sup> For example, Hawkins and Kaltwasser (2019) highlight three component parts: (1) the portrayal of ‘the elite’ as a self-serving and/or corrupt entity, (2) the depiction of ‘the people’ as both homogeneous and virtuous, and (3) a Manichean outlook that moralizes the distinctions between these two groups and calls for greater popular sovereignty.

Regardless of the supplementary component, scholars agree that something is populist *only* when it has all the identified conditions (see Wuttke et al., 2020). Populism’s

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<sup>2</sup> Many scholars advocate for only requiring the two core conditions: anti-elitism and people-centrism as there is more disagreement on the final condition being support for popular sovereignty (Schulz et al., 2018) or a Manichean outlook on society (Castanho Silva et al., 2018). This is particularly common in textual analyses (Rooduijn and Pauwels, 2011; Rooduijn 2019; De Bruycker & Rooduijn, 2021).

multidimensional structure centers on the *relationship* between these factors—not any of them in isolation—thus populism is distinct from ideas and ideologies featuring only one of these parts (Rooduijn, 2014; Wuttke et al., 2020). In other words, this multidimensional structure differentiates populism from related concepts like political trust, anti-intellectualism, belief in simple solutions, or even conspiratorial beliefs. Although scholars highlight that many of these concepts are interrelated (see Erisen et al., 2021), populism distinguishes itself as a relational concept that *only* exists at the connection between people-centrism and anti-elitism, particularly when accompanied by a moralistic outlook of politics and a desire to return “the people” to their rightful centrality in the political system.

### **Populist Attitudes and Populist Communication**

From this concept of populism, scholars of the ideational approach seek to make connections between manifestations of populism across levels of analysis (Hawkins & Kaltwasser, 2018). Although the origins of populist research began at the societal level—examining how the “Populist Zeitgeist” interacts with the outlook of liberal democracy (Mudde, 2004)—more recent work considers “populist attitudes” or populism at the individual level. Survey research indicates that populist attitudes are widespread across countries, including the United States, and most individuals agree to some extent with populist ideas around the relationship between the people and the elite (Akkerman et al., 2014; Spruyt et al., 2016). Hawkins & Kaltwasser (2018) pose a puzzle then: if citizens—at least to some extent—loosely agree with the core ideas of populism, why are populist forces largely unsuccessful at winning and maintaining control of government?

Scholars generally agree that the reason why populist attitudes do not reliably lead to populists' political success is that—as mentioned briefly above—populist attitudes are a latent demand. As such, populist attitudes must be activated by a “combination of context and framing” (Busby et al., 2019). This stream of inquiry argues that, to be influential, populist ideas must “resonate with the public” and looks to the connection between public attitudes, context, and communication from various actors (mainly populist leaders) to understand the power of populism at the societal level (Akkerman et al., 2014; Bonikowski & Gidron, 2016; Wuttke et al., 2020).

Looking first at context, Hawkins and Kaltwasser (2019) argue that the most likely setting for producing a populist response is one with an “intentional failure of democratic representation.” In other words, when a government *purposefully* acts—or is perceived to have acted—in a way that harms the interests of a particular set of constituents to benefit another group (Betz, 2019). In less-developed countries, this context often manifests as widespread corruption, explaining the more persistent successes of radical populist parties in countries with high corruption and a weak state (Bornschieer, 2019; Kenny, 2017). In more economically developed countries, this more typically manifests as what Peter Mair called ‘partyless democracy’ or a “democratic regime where parties have lost their representative function” creating opportunities for populist protest (Kriesi, 2014). Kriesi (2014) links this loss of representation to structural changes in the responsibilities of government and the growth of issues that require multilevel governance, leading to the denationalization of politics and policymaking. Thus, political parties acting responsibly on issues—like climate change—that require global cooperation may be seen as alienating certain sets of constituents and acting anti-democratically (Kriesi, 2014; Mudde & Kaltwasser, 2018).

While this context of “representational failure” is a necessary condition for activating latent populist attitudes, it is not sufficient without communication from actors framing events in a populist way (Hawkins & Kaltwasser, 2018). Gamson and Modigliani (1987, 143) give a useful, if broad, definition of a frame as: “a central organizing idea or storyline that provides meaning to an unfolding strip of events, weaving a connection between them.” Frames emphasize a particular facet of a policy or issue allowing consumers to “make sense” of their political world (Berinsky & Kinder, 2006). In short, framing can shape public perceptions, particularly when attitudes are not yet fully developed, by strategically emphasizing particular factors relative to others (Chong & Druckman, 2007; Druckman & Lupia, 2017). Thus, populist framing of a problem can move it from a narrowly perceived policy failure to a larger failure of representation making populist concerns more *salient* and activating populist attitudes (Entman, 1993; Hawkins & Kaltwasser, 2018).

Populist framing, then, becomes a vital link connecting populist attitudes to different issue contexts and political contests. Drawing once again on the “thinness” of core populist ideas, Mazzoleni (2008, 58) describes populism as a “master frame” that can be applied to a wide variety of issues. Due to the context-dependent nature of populism (and its morphological behavior), expressions of populist frames vary across communication channels and between contexts (Ernst et al., 2017). First, frames may vary in their quantity and the actors who deploy them. One example of this is De Bruycker & Rooduijn’s (2021) finding that populist parties in the EU are more likely to express populist ideas in the media when the issues are both salient and polarized. Salient issues serve as a “breeding ground” for populist parties as they can reach a broad audience and gain media attention (Ernst et al., 2017) and while mainstream parties may

avoid polarized issues as politically risky, populist parties benefit from increased polarization and appeals to individuals distant from centrist views (De Bruycker & Rooduijn, 2021).

Second, frames may vary in their individual qualities. Populist frames typically employ strong emotional triggers, mainly negative emotions like fear and anger (Hameleers et al., 2016). Anger is used to motivate individuals to find a scapegoat, as seen in “angry populism” and exclusionary populist rhetoric targeting migrants and ethnic minorities (Abelson, 1995; Wahl-Jorgensen, 2018). Likewise, anger is often used in populist frames to focus attention on the unifying force of populism—the dishonest behavior of elites—rather than attempting to valorize and strongly identify a homogeneous people (that often does not truly exist) (Hawkins & Kaltwasser, 2018). Beyond emotion, populist frames often seek to highlight the in-group/out-group identities of the people and the elite (Meléndez and Kaltwasser, 2019). And with this, many populist frames seek to blame government failures or negative policy outcomes on the *intentional* behavior of self-serving elites. Through the framing of “systematic elite malfeasance,” populist messages generate a normative threat or “a generalized anxiety and sense of threat to society, the country as a whole, or the region where one lives” (Davis & Silver, 2004, 34; Busby et al., 2019). This threat is often a *normative democratic threat* where the basic foundations of democracy are seen as under threat by enemies in positions of power undermining democracy for personal gain (Busby et al., 2019). As Hawkins and Kaltwasser (2019, 9) explain, “for populist attitudes to be activated, government failures must be framed as affecting the democratic community, specifically, the norms of citizenship that help define that community.”

Regardless of the individual mechanisms employed by populist frames, for the frames to be effective there must be coherence between the populist message and the underlying attitudes (Ernst et al., 2017). And as such, populist frames must tap into the same constructs that are the



foundation of populism as a set of ideas and the related latent demands underlying populist attitudes (see Table 2.1 for an illustration of the coherence between populist communication and attitudes, adapted from Wirth et al., 2016). If all these conditions are met, then scholars expect that whatever populist forces are at play are more likely to meet their goals, be that electoral success or changing particular issue attitudes. Put simply, a successful populist moment (like Trump’s election in 2016) is often a product of “the right rhetoric spoken by the right person to the right audience at the right time” (Oliver & Rahn, 2016; Rahn, 2018).

Table 2.1: Identifying Populist Communication and Attitudes		
	Communication	Attitudes
Anti-Elitism	<ul style="list-style-type: none"> <li>• Discredits the intentions of the elites</li> <li>• Sets the elite as a separate entity from “the people”</li> <li>• Claims elites are exploiting “the people”</li> <li>• Blames elites</li> </ul>	<ul style="list-style-type: none"> <li>• Negative views towards elites and institutions (in the abstract)</li> <li>• Belief that elites are self-interested and/or corrupt</li> <li>• View that elites are in opposition to the people</li> </ul>
Restoring Sovereignty/ Manichaean Outlook	<ul style="list-style-type: none"> <li>• Highlights moral division between “the people” and “the elites”</li> <li>• Describes division of power as absolute (taking power from one giving power to the other)</li> <li>• Demands more power to the people, and denied from elites</li> </ul>	<ul style="list-style-type: none"> <li>• Perception that politics is a moral struggle between good and evil</li> <li>• Desires for more power for the people at the expense of elites</li> </ul>
People-Centrism	<ul style="list-style-type: none"> <li>• Praises “the people” and their values/virtues</li> <li>• Valorizes the “common man”</li> <li>• Presents the people as a homogeneous/monolithic entity</li> </ul>	<ul style="list-style-type: none"> <li>• Positive perception of the people</li> <li>• View that the people are homogeneous/have a unified political will</li> </ul>

## Media Populism

The literature around populist communication often focuses on *strategic* populist framing, or the role of communication in the political strategy of overtly populist parties, leaders, and the media outlets they control (see De Bruycker & Rooduijn, 2021). Moffitt (2016), for example, highlights the techniques used by populist leaders to produce uncomplicated solutions to societal problems and simplify political conflicts, particularly favoring “common sense responses.” This behavior can be seen in Trump’s proposal of “the Wall” to resolve anxieties around immigration or the idea of planting trees to fix climate change (Nadler, 2019). These “solutions” are immediate, tangible, and easily understood even while they provide no real answer to the underlying issues. However, an emerging subfield of this work broadens the scope of “populist communication” and looks to the role of larger media structures and dynamics in the spread of populist ideas and the success of populist movements (Moffitt, 2016; Nadler, 2019).

Critical media scholarship, in particular, highlights the role of media structures—from journalistic norms to social media algorithms—in shaping democratic expression and political possibility (Nadler, 2019). Scholars have studied the way increased mediatization of politics in the “current age of media abundance” provides opportunities for populist ideas to spread due to decreased journalistic gatekeeping and more opportunities for direct connections between politicians and the public (Wirth et al., 2016). Additionally, low trust in the media signals that individuals no longer turn mainstream media sources to evaluate policies or candidates (Mitchell et al., 2018) and Schulz et al. (2020) find that perceptions that the media is hostile to populist ideas can increase support for those ideas. With this, scholars highlight that the current media landscape in the U.S.—particularly the monetization of news organizations and the viral nature of social media formats—rewards behaviors that often manifest within populist movements, like

frames emphasizing elite political tactics (Wirth et al., 2016) and messages focused on out-group animosity (Rathje et al., 2021).

While this work importantly demonstrates that the media can serve to amplify populist movements and related communication, more interesting for this study is work on “media populism” that explores how the media sources, themselves, can become populist actors by framing issues in populist ways (Mazzoleni, 2008). Mazzoleni (2008) emphasizes how the increased commercialization of media outlets transformed the media landscape from one of information into one of spectacle and sensationalism. Media coverage now seeks to entertain and appeal to audiences rather than inform (Wirth et al., 2016). This movement towards “infotainment” is particularly common in TV news, to the point where, in France, the television is nicknamed ‘*la machine à populisme*’ (Mazzoleni, 2008). And populist ideas often thrive in this infotainment environment due to both their extreme positions—that are often performatively engaging—and popular appeal within targeted subaudiences (Wirth et al., 2016; Mazzoleni, 2008).

Although the focus of this study is not on the motivations of media ownership or editors, it is through this contextualization that we can understand *why* populist frames might emerge in (and vary between) different media sources, even when the source is not supported by a populist actor. And likewise, we can consider how the media might both create and perpetuate populist lenses through which to understand different critical issue contexts, like climate change. From this, Krämer (2014, 48) defines *media populism* as the use of the stylistic and ideological elements of populism “by some media, viz. the construction and favoritism of in-groups, hostility towards, and circumvention of the elites and institutions of representative democracy, reliance on

charisma and (group-related) commonsense, and appeal to moral sentiments (thus on an emotionalizing, personalizing, and ostentatiously plain-spoken discourse).”

Scholars of media populism also highlight that even non-populist media outlets can promote “anti-institutional cynicism” that can shift the framing of issues towards a more populist lens (Nadler, 2019, 6). Media scholars have long observed the growing trend of “cynical” frames that emphasize political strategy over policy and foster public discontent towards established parties (see Cappella & Jamieson, 1997). Although not necessarily populist themselves, these cynical frames combine with the above-described commercial pressures to create “fertile ground for the messages of populist outsiders.” By focusing on the tactical motivations of politicians, cynical frames spread a view of politics that centers politicians and established parties as driven by strategy and self-interest (Wirth et al., 2016). Media populism can also occur when media outlets or personalities position themselves as a “countervailing power” to political parties and governments and a “mouthpiece for the people,” setting themselves as an anti-institutional force (and motivating related attitudes) even when they are backed by elite institutions themselves (Krämer, 2014).

### **Why Populism and Climate Change?**

As observed in the studies of populism described above, there are several reasons why climate change may have become entangled in these larger populist debates. Climate change policy can be framed as a “intentional failure of democratic representation” as many of the solutions occur within international structures and agreements that operate outside national government systems and democratic processes (Hawkins and Kaltwasser, 2019). Additionally, the salient and highly polarized nature of climate change in the U.S. context makes it more likely

that populists will engage with these issues (De Bruycker & Rooduijn, 2021). And relatedly, the complexity of climate change and related policy solutions make it fertile ground for the simplification often present within populist frames (Nadler, 2019)

### **Right-wing Populism and Climate Change**

Thus, it should be no surprise that scholars have marked an increasing connection between right-wing populism and climate skepticism. Climate change *skepticism* refers to a set of arguments or attitudes that “reject, dispute, or question the mainstream/orthodox thesis that the global climate is changing primarily due to human activities and that these changes will affect severely both ecosystems and human populations if left unarrested” (Van Rensburg, 2015, 1). Although populism can manifest on both the left- and right-wing, resistance to climate change action has become an important part of *right-wing populist* communication (Lockwood, 2018).

The right-wing populist variant follows the same central narrative of traditional populism, but often normalizes “exclusionary rhetoric” (Wodak, 2015, xiii) and many accounts trace its contemporary growth to the “economic and political marginalization of those ‘left behind’ by the effects of globalization and technical change” (Lockwood, 2018). Although the exclusionary nature of right-wing populism is likely less relevant to climate change communication, this study focuses on right-wing populism as the convergence of traditional right-left politics with populist ideas. Scholars have tracked the relationship between the Republican party and climate skepticism for decades (Dunlap & McCright, 2008), and—as described above—climate change can become a symbol for populist concerns that elites do not care about the “common citizen” focusing on instead on global elite concerns.

As Huber (2020) describes, climate change is well-situated for populist framing as it is detached from individual citizens both by its policy responses (negotiated by elites through international agreements) and its technical nature (based on dense scientific reports). This, combined with the temporal and geographic distance of climate change, creates a prime environment for effective populist re-branding. Likewise, Lockwood (2018) presents a theoretical argument highlighting the combination of authoritarianism, nationalism, and anti-elitism that produces resistance towards climate change actions as part of a cosmopolitan elite agenda.

Scholars largely agree that while politicians are a common target of populist anti-elite rhetoric, populism can also focus on economic elites, civil servants, and intellectuals, who are often seen as “exercising undue influence on politics in the pursuit of their own self-interest” (Bonikowski, 2017, S184). Furthermore, populism tends towards high skepticism concerning representative institutions (like courts and legislatures) as they are seen as both separating the people from the political process and serving the interests of the elite (Bonikowski, 2017). In the context of climate change, right-wing populist rhetoric can manifest through suspicions of “both the complexity of climate science and policy and of the role of climate scientists and environmentalists” (Lockwood, 2018, 713).

Yet, this growing literature still faces challenges. In addition to laying the groundwork for empirical testing, Lockwood (2018) highlights one of the major difficulties studying the effects of populism in the context of climate change: separating its effects from party identification or political ideology. It is no surprise that U.S. studies have consistently found a link between right-wing attitudes and climate skepticism (McCrigh et al., 2016), however, this research often conflates the views of populists and more traditional right-of-center parties

(Lockwood, 2018). Some scholars have begun to untangle this relationship and recent studies have demonstrated both the inter-dependent and distinct relationships between populist attitudes, political party, and climate skepticism. Hamilton and Saito (2015), using statewide New Hampshire survey data, found that the differences between baseline Republicans and Tea Party supporters on many science and environmental questions were greater than the differences between Republicans and Independents. Huber (2020) links populism to climate skepticism by demonstrating that populist attitudes enhance the effects of partisanship on climate beliefs such that populist Democrats *support* climate policies more than non-populists, while populist Republicans *oppose* climate policies more than their non-populist counterparts.

Beyond the complications of party identification, while we increasingly know more about the theoretical connections between populist attitudes and climate change skepticism, we still do not fully understand the mechanisms behind this relationship. Some efforts to this end include scholars who have highlighted anti-intellectualism (Merkley, 2020) as a pathway through which populism may shape climate skeptic views. Merkley (2020) shows that exposure to populist rhetoric primes anti-intellectualism and influences skepticism towards expert consensus cues even when that rhetoric does not contain an anti-intellectual message. I join scholars like Wuttke et al. (2020) in arguing that to fully understand the role of populism in climate change beliefs we must understand it as a multidimensional construct and not merely as a sum of its parts. Thus, while anti-intellectualism alone can help us understand part of the role of populist rhetoric, the unique combination of that anti-elitism with people-centrism—particularly when associated with a Manichean outlook (a dualistic view of good and evil) and a belief in popular sovereignty—might have unique effects.

## Climate Communication and Populism

As Forchtner (2019) highlights, work on the intersection of far-right communication and climate change is limited. Yet, even the work that does exist tends to focus on the articulation of climate viewpoints by far-right actors (e.g. right-wing party platforms and speeches) rather than the spread of “right-wing” communication in broader media environments (Gemenis et al., 2012, Hess & Renner, 2019). And, as described in the previous section, to understand populist attitudes and the ‘demand’ side of populist politics (Hawkins and Kaltwasser, 2018; Huber, 2020) we must also consider the role of the media and the ‘supply’ side of populist communication patterns.

Populist communication, at its core, could simply be identified by asking the questions: “Do the authors refer to the people?” and “Do the authors criticize elites?” (Rooduijn, 2014). Yet, in modern use, populist communication is often marked by the style and tactics used by populist leaders and organizations. One common communication pattern present in populist frames is conspiracy. As Castanho Silva et al., (2017, 425) describe, many conspiracy theories can be thought of as “variations” on the “theme” of populism. And conspiracy theories often have a certain logical or rhetorical style (Byford, 2014) that may shape both their interpretation of events and how they interact with future messages. Conspiracies reduce complicated phenomena into “monistic and intrinsically deterministic explanations” that grant elites nearly infinite power (Castanho Silva et al., 2017, 426). And, critically, because these theories rely on both elite supremacy and secrecy surrounding the co-conspirators, these theories are not falsifiable. Thus, “every attempt to deny a conspiracy theory can be turned into evidence for its pervasiveness, which only inflates the perception of the conspirators’ genius and power” (Castanho Silva et al., 2017, 426).



Going even farther, scholars have viewed conspiracy belief as a form of motivated reasoning as believing in any given conspiracy theory is strongly related to believing in other conspiracies, even if contradictory (Wood et al., 2012). And these scholars describe how a belief in a broader “deceptive officialdom” that is engaged in a “motivated deception of the public” (Wood et al., 2012, 768) acts as a “compass” for evaluating the credibility of a given story. In this view, if a story implies or describes elite actors as concealing and perpetuating some plot against the people, then it is likely to be true (Castanho Silva et al., 2017). In the context of climate change, the relationship between populism and conspiracist ideation (Lewandowsky et al., 2013) is one way through which different types of skepticism described by scholars like Forchtner (2019) may relate and potentially reinforce one another. For example, skepticism towards scientific evidence of climate change (evidence skepticism) and a belief that scientists are conspiring against ‘the people’ may make one more likely to be skeptical towards the subsequent policies (response skepticism) and believe that those instruments are also part of a larger conspiracy.

Additionally, considering how populist rhetoric connects with climate skepticism more broadly, I follow Forchtner (2019) in highlighting that it is critical that we consider the different types of skepticism beyond only scientific skepticism (which is often the exclusive focus of work examining climate skepticism). Skepticism towards the political process and policy responses themselves may also play a role in climate change attitudes and behaviors (Van Rensburg, 2015), and populist rhetoric may work to motivate multiple types of skepticism. Forchtner (2019) and Van Rensburg (2015) describe three main types of climate change skepticism: “evidence skepticism” (skepticism towards scientific evidence of climate change), “process skepticism” (skepticism towards the “scientific, bureaucratic, and political processes behind mainstream

climate science”), and “response skepticism” (skepticism towards responses, like policies, to the climate issue).

While frames using “hoax” language have been described as science uncertainty frames, they also link climate science with a broader conspiracy that ties scientists with an elite class working against the will and well-being of ‘the people.’ As Van Rensburg (2015) describes, these ‘hoax’ frames are more closely linked to claims questioning the scientific knowledge generation process rather than evidence for anthropogenic climate change itself. With that, I suggest that misidentifying these frames as *only* about the science of anthropogenic climate change could lead to a critical misunderstanding of how to effectively respond to these frames. For example, misinterpreting “hoax” language as being solely about scientific debate and ignoring its connection to perceptions of a larger elite conspiracy could falsely lead to the idea that an effective response ought to be increased scientific information.

Populist framing, given its links to both broad conspiracy and anti-elite attitudes, could work to motivate any of these types of skepticism. First, because of the inherent simplification of populist frames, this could manifest as frames preferencing tangible weather patterns over scientific explanations of long-term climate change generating evidence skepticism. And, if the government is perceived to be controlled by elites who are conspiring against the true exercise of the will of the people and operating undemocratically, this is likely to promote skepticism towards climate policies in this context, or response skepticism. And, most commonly, I expect that, because populist messages use a “cynical” lens to view politics that undermines the intentions of different groups of elites, it is likely that populist frames will use and motivate process skepticism. As right-wing populism plays an increasing role in climate discourse, and the

need for climate action rises, it is critical that we better understand the growth of these frames, and their potential influence on related attitudes.

The goal of this chapter has been to set the stage for understanding what populism is, the media's role, and how these dynamics have entered the climate change issue space. Moving forward, this dissertation seeks to expand the existing literature by examining what (if any) climate skeptic populist frames have emerged in different types of U.S. media outlets. While the media is a vital actor in disseminating populist ideas, as Forchner (2019) and others (Mazzolini, 2008; Nadler, 2019) highlight, it is often understudied compared to communication from overt populist actors. Then, following this media analysis, I will assess the degree to which populist skeptic frames present in the media may be influential in shaping individuals' attitudes towards climate change and related policies.

### CHAPTER 3. EXPANDING SKEPTICISM: POPULISM IN CLIMATE CHANGE COMMUNICATION

As described in the first two chapters, significant research in recent years has examined the rise of populist opposition to climate action. Although scholars have been quick to highlight this growing trend—and theorize the potential effects of right-wing populism on climate attitudes and policy action—we currently know less about how populist ideas emerge in the context of media communication on climate change. As Rooduijn (2014) describes, much of the work on populism focuses on the electoral success of populist *parties* rather than the pervasiveness of populist *messages*. Even those studies looking at identifying populist messages tend to focus on party platforms and overt forms of populist rhetoric (e.g. the stylistic techniques of persuasive speech used by populist leaders) rather than how populist ideas disseminate and become encoded in broader media communication. Additionally, we know even less about the context specific nature of populism in climate communication. What are the frames used by populist climate skeptic messages? And how do they connect to or modify existing patterns of climate skeptic communication?

This study builds on Forchtner's (2019) work seeking to untangle the relationships between the far-right and diverse forms of climate skepticism. Additionally, it adds to research studying the diversity of climate skeptic frames (Jett & Raymond, 2021; Cann & Raymond, 2018; Boussalis & Coan, 2016), and the prevalence of populist frames in the media (Rooduijn, 2014; Akkerman, 2011; Hameleers et al., 2019). Building on theories regarding the presence of different types of climate skepticism in populist opposition to climate change (see Forchtner, 2019), I add to this literature by exploring the actual distribution of those different types of skepticism using a content analysis of different media sources of climate change communication.

Additionally, I contribute on the growing literature on populism by the media (Rooduijn, 2014) by assessing the distribution of populist framing in a particular issue context.

A content analysis of opinion pieces in mainstream newspapers and *Fox News* programming between 2008 and 2020 indicates that—while less common than non-populist climate skeptic frames—populist frames have become an important part of skeptic communication around climate change, both in the *Wall Street Journal* and *Fox News*. In line with my hypotheses, populist skeptic frames are more likely to focus on critiques of the scientific knowledge generation process and related political processes (process skepticism) rather than claims challenging the science of climate change itself (evidence skepticism) or policy responses (response skepticism). Additionally, I provide preliminary evidence of how populist frames may intensify skepticism from an uncertainty about climate change to complete rejection. In doing so, this study provides important evidence regarding (1) the nature of *populist* climate skeptic frames and (2) the role of the media in disseminating populist messages about climate change.

### **Defining Populism**

As discussed in chapter 2, *populism* is broadly agreed to be a set of ideas that center on the relationship between two antagonistic groups: the (good) people and the (bad) elite (Hawkins & Chavismo, 2010; Panizza, 2005). While scholars argue over populism’s status as a ‘thin-centered’ ideology, a world view, or a rhetorical style, the component parts of populism are largely agreed upon (Hawkins & Chavismo, 2010; Moffitt, 2016; Gidron and Bonikowski, 2013). As Mudde (2004, 543) describes, populism “considers society to be ultimately separated into two homogeneous and antagonistic groups, ‘the pure people’ versus ‘the corrupt elite,’ and...argues that politics should be an expression of the *volonté générale* (general will) of the

people.” The term, ‘the people’ can be interpreted differently by context, from the entire nation to the working class or proletariat. Regardless of context, ‘the people’ are always seen as a homogeneous entity that is being unjustly removed from its centrality in society and politics by an evil, selfish, incompetent, and/or corrupt elite (Barr, 2009; Mudde, 2004). And this notion of the elite is fluid and can include the political, economic, and/or cultural elite including groups like politicians, bankers, academics, and scientists (Erisen et al., 2021; Bonikowski, 2017).

As with the fluidity of the concepts like “the elite,” populism—through its ‘thin’ nature—is able to merge and attach to other ‘thicker’ ideologies and adapt to new environments (Mudde & Kaltwasser, 2012). The description of populist ideas as being “attached” to other constructs describes how populism often lacks the strength and coherence to stand as a lone ideological center and instead is often merged with other ideologies. In recent years, populism has become a significant part of the rhetorical strategies of the radical right, but populism has also historically played a role in radical left parties (Akkerman et al., 2017). Given this ‘morphological’ nature, how do we identify these ‘thin,’ and often changing ideas in different issue contexts? As described, the core of populism is the set of ideas encompassing the antagonistic relationship between ‘the people’ and ‘the elites’ that is composed of *at least* two sub-dimensions: anti-elitism and people-centrism (and often popular sovereignty and/or a Manichean outlook) (Rooduijn, 2019). Explained differently, populism has two cores—people-centrism and anti-intellectualism—which is politicized through moralistic calls for popular sovereignty (March, 2019).

Considering the breadth of that description, populist messages could manifest in diverse ways depending on the issue, context, or goal of the message creator. As a relational concept, populist frames feature an elite which has deceived or defrauded the people by failing to keep

their promises and instead pursued their own self-interest (Mudde, 2004). A populist frame opposing climate action, for example, could describe the elite-driven processes of international agreements as a way for elites to distance their actions from the democratic process and the will of the people. Likewise, a populist frame expressing doubt about the evidentiary basis of anthropogenic climate change could highlight political involvement in scientific pipelines through federal funding as evidence of an elite conspiracy to exaggerate the evidence of dangerous climate change.

Critically, by treating populism as a set of ideas—rather than a rhetorical style or based on the attitudes of the frame producer—populist ideas can be identified as characteristics of specific messages and conceptualized in multiple contexts (Rooduijn, 2014). So, regardless of context, populist communication can be broadly identified as messages that frame an issue or political contest by highlighting the adversarial relationship between the elite and the public. And, “non-populist” actors—like the media—can disseminate populist ideas in their communication on climate change if their framing of the issue reflects the core ideas of populism. From this general understanding of populist communication, the vital task, then, becomes accurately classifying populist frames in a given context. Understanding the context-specific nature of populist framing patterns is critical for understanding their potential effects on both public opinion and policy development in critical issue environments like climate change.

### **Populism in U.S. Climate Communication**

As with most issue areas, the communication environment around climate change is crowded with diverse messages developed and spread by a range of actors, from politicians and lobbyists to NGOs and industries. One of the primary ways to conceptualize these messages, and

then consider their potential effects, is through the concept of *framing*. For this study, *frames* refer to “devices embedded in political discourse” which organize an event or issue and provide meaning through a central storyline or idea (Kinder & Sanders, 1990; Gamson & Modigliani, 1987; Scheufele, 1999). Frames can provide schemas for interpreting issues, and thereby shape public perceptions, by *emphasizing* particular factors relative to others (Chong & Druckman, 2007; Druckman & Lupia, 2017). In other words, frames “select some aspects of perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation” (Entman, 1993).

In climate change communication, frames in opposition to climate action have been traced back to early narratives of “scientific debate.” This “debate” was manufactured, in part, by opponents of climate policies responding to early science frames by calling into question the evidentiary basis of climate change and the trustworthiness of scientists (Oreskes & Conway, 2010). And the media, following news norms of impartiality, validated this debate by equally covering both sides irrespective of the overwhelming scientific support for climate change (Anderson, 2009; Boykoff & Boykoff, 2007). Among these anti-science frames, the most frequently used frame focuses on the *uncertainty* of climate science, highlighting the “unknowable” complexities of climate change and natural processes (McCright & Dunlap, 2000). Other common anti-science frames depict climate change as a “myth” or “scare tactic” and depict climate change dissenters as “unfairly persecuted” (McCright & Dunlap, 2000; Cann & Raymond, 2018).

As described, there is significant evidence that the media has played a critical role in the development of climate change as a political issue (Boykoff, 2011; Bolsen & Shapiro, 2018).



Additionally, scholars have increasingly considered the role of the media in spreading populist ideas and messages, and influencing the rise of populist movements, particularly in the study of Western European populist parties (Rooduijn, 2014; Hameleers et al., 2019). Building on framing literature and the ideational approach to understanding populism (i.e. treating populism as a set of ideas), this work considers the connections between media communication and the spread of populist parties, movements, and ideas. Reviewing the literature on the media and populism, Nadler (2019) offers three potential frameworks for understanding the role of the media in populist movements: (1) the weakening of traditional media gatekeeping, (2) the increasing mediatization of politics favoring a populist rhetorical style, and (3) “media populism.”

For this study, I follow Nadler’s (2019) third framework describing how media sources have—to different degrees—become populist actors (or promoted populist ideas) even without supporting populist parties. In other words, *media populism* describes populism *by* the media, rather than the (often disproportional) media attention given to populist actors (Mazzoleni, 2008; Bos & Brants, 2014). From this, media populism can be defined as “the media’s use of populist rhetoric and style, independent of the political actors associated with populism” (Hameleers et al., 2019, 1148). Within this broader definition, I focus on the interpretation of climate change using populist descriptions referencing the specific relationship between a “good” people and “evil” elites” (Krämer, 2014; Laclau, 2005).

The presence of populist frames in the media—separate from reporting on populist movements and leaders—can be observed as a growing trend stemming from the long-standing history of “cynical” frames that emphasize strategy over policy and foster public discontent towards established parties (see Cappella & Jamieson, 1997). While not always populist

themselves, these cynical frames combine with commercial pressures to create “fertile ground for the messages of populist outsiders” and deepen the public’s view that established parties are driven by strategy and self-interest (Wirth et al., 2016). A similar story may be occurring within climate communication as opponents of climate action use strategies that question the integrity of scientists and paint climate dissenters as victims in a Biblical “David versus Goliath” conflict (Cann & Raymond, 2018). And building on the manufactured “scientific debate” and the treatment of skeptics as an outsider group under attack, media populism can also occur when media outlets or personalities present themselves as “mouthpieces for the people” and/or position themselves as a counterbalance to elite party politics, even when they are backed by elite institutions themselves (Krämer, 2014).

### **Climate Change Skepticism**

Since McCright & Dunlap’s (2000) analysis of conservative think-tank publications, scholars have documented both a continued emphasis on science uncertainty combined with an increased presence of policy frames focused on negative consumer and economic effects of action on climate change (Cann & Raymond, 2018; Jett & Raymond, 2021). And likewise, scholars have examined the divergent patterns of communication and logic between the climate change “convinced” and the climate change “skeptical,” documenting increasing polarization in both in the media and informal communication (Hoffman, 2011).

Climate change *skepticism* refers to a set of arguments<sup>3</sup> that “reject, dispute, or question the mainstream/orthodox thesis that the global climate is changing primarily due to human

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<sup>3</sup> “Skepticism” and “skeptics” also refer to a set of individuals and related attitudes associated with acceptance and belief in these skeptic claims.

activities and that these changes will affect severely both ecosystems and human populations if left unarrested” (Van Rensburg, 2015, 1). This broad concept encompasses views ranging from outright denial of climate change to doubts stemming from a wider array of personal and political responses to climate change (Capstick & Pidgeon, 2014). Thus, oppositional climate frames like those studied by McCright & Dunlap (2000) and Cann & Raymond (2018) all fall within this definition of skepticism, whether they focus on science uncertainty or broader questions of the costs of climate action compared to climate change itself.

While it is useful to have a catch-all term for claims that promote non-acceptance of the core theses around climate change, scholars also theorized distinct categories of skeptic claims. In efforts to narrow the construct and strengthen the framework around which we characterize skeptic claims, Poortinga et al. (2011) used *trend*, *attribution*, and *impact* skepticism to describe doubts (1) that global warming is occurring, (2) that it is anthropogenic, and (3) regarding the harmfulness of climate impacts. Likewise, using a mixed-method approach, Capstick & Pidgeon (2014) identify two main types of skepticism: *epistemic* skepticism and *response* skepticism.

Further seeking to re-evaluate the concept of climate change skepticism, Van Rensburg (2015) builds on Capstick and Pidgeon’s (2014) treatment and proposes three centers of skeptic arguments (evidence, process, and response) built from two classes of critiques (core and concomitant). In Van Rensburg’s (2015) taxonomy, he classifies *evidence* skepticism as the “core” and “definitional heart” of climate skepticism. Evidence skepticism encapsulates Poortinga et al.’s (2011) description of trend, attribution, and impact skepticism. *Response* skepticism, by contrast, is the most distant from this core and refers to doubts concerning the efficacy of climate action and “the personal and societal relevance of climate change” (Capstick & Pidgeon, 2014). Finally, Van Rensburg (2015, 4) adds a new center of skepticism: *process*

skepticism or “critiques of the scientific, bureaucratic, and political processes behind mainstream climate science.” Van Rensburg (2015, 2) emphasizes that process skepticism is an “underrated” source of skepticism that might serve as a primary basis for skeptics’ evidence and response misgivings.

### **Climate Skepticism & Populism**

Looking broadly at far-right politics and how they intersect with climate attitudes, Forchtner (2019) supports Van Rensburg’s (2015) multi-faceted approach to describing climate skepticism. Forchtner (2019) goes on to suggest that far right attitudes towards climate change are equally diverse in their reasoning. Far-right groups often have a complex relationship with the natural environment and nationhood—given the connection between “the land” and “the people”—which is often at the forefront of issues like climate change (Forchtner, 2019). This can lead to a diverse range of far-right reactions to climate policies: from seeing wind turbines as “blights” on the landscape and dangerous to bats to viewing international actions on climate change as elitist, anti-freedom attacks on national sovereignty (Hatakka & Välimäki, 2019; Forchtner, 2019; Stegemann & Ossewaarde, 2018)

Forchtner (2019) is not alone in highlighting the connections between the far-right and climate skepticism, and several scholars have looked at the “congruence between RWP (right-wing populism) and climate skepticism” (Lockwood, 2018, 713). Lockwood (2018) theorizes that the amalgamation of authoritarianism, nationalism, and anti-elitism often found in contemporary right-wing populism generates resistance towards climate change actions as part of a cosmopolitan elite agenda. In addition, the temporal and geographic distance of climate change, combined with the disconnected and technical nature of both climate science and policy

responses—often based on dense reports and negotiated through international treaties—position it for easy populist (re)framing (Huber, 2020).

Most of the scholars looking at the relationships between right-wing populism and climate skepticism focus on populist *attitudes*, the ‘demand’ side of populist politics, rather than the ‘supply’ side of populist *framing*. Yet, there is good reason to expect the same “congruence” between populism and skepticism in communication as populist ideas must “resonate with the public” for populism to be powerful on the societal level (Gidron & Bonikowski, 2013; Wuttke et al., 2020; Akkerman et al., 2014). Likewise, as Mazzoleini (2003, 2) states, “full understanding of the populist phenomenon cannot be achieved without studying mass communication perspectives and media-related dynamics.” To understand why and how populist ideas may have entered the climate communication issue space, I draw attention to two particular facets of populism: the distrust of elites including institutions and intellectual elites (like scientists) and the overall flexibility of populism to adapt to new environments as described above.

Climate change, being a global issue, requires international action. Many of the avenues through which international agreements are made are removed from traditional country-centered political processes. Likewise, the knowledge generation processes around climate change—that drive problem definition—are equally distant, with results presented in dense scientific writings and validated through processes (like peer review) that are unfamiliar outside academic circles. This creates an environment where, in addition to attacking political elites, populist rhetoric can target civil servants and intellectuals as acting with undue influence—influence that should rightfully belong to the ‘public’—and conspiring to enact policy agendas that further their own self-interest (Bonikowski, 2017).

One illustrative example of this conflict between the public and elites is the use of “hoax” language by Senator James Inhofe, Donald Trump, and other prominent skeptics. On July 28, 2003, Inhofe ended his speech titled “The Science of Climate Change” with the question: “With all of the hysteria, all of the fear, all of the phony science, could it be that man-made global warming is the greatest hoax ever perpetrated on the American people?” While Inhofe’s remarks can be seen as an attack on the science of climate change, it has the added element of describing a malicious deception (hoax) by elites against the public (American people). In other words, this “hoax” framing goes beyond previously identified science skepticism frames studied by scholars (McCright & Dunlap, 2000, Cann & Raymond, 2018) by adding the explicitly populist elements of an “evil elite” acting against the “will of the people.”

In this way, we can consider populist skeptic framing as an expansion of previous science skeptic frames, highlighting the adaptability of populism to new contexts and existing modes of communication. In the U.S., populist frames may build on the long-standing, highly polarized debates around climate science compared to how they might instead be linked to Euroscepticism in the UK (Forchtner, 2019). In particular, the inclusion of populist messages in this context could deepen and intensify doubts around climate change as traditional climate skeptic frames merge with populist views of a broader adversarial relationship between the public and conspiring elite groups. Indeed, one way to think of this study is as an expansion of Oreskes & Conway’s (2011) examination of efforts to create scientific uncertainty in the U.S. to consider the growth of other types of doubt (i.e. doubt in government efficacy or the intentions of elites to fairly distribute costs and care equitably for ‘the public’) generated through populist ideas.

## Hypotheses

As described above, although scholars have studied the frequency of different climate skeptic frames (see Cann & Raymond, 2018; Boussalis & Coan, 2016), we currently know less specifically about the presence of *populist* skeptic frames, given that these studies lack a separate coding scheme for populist frames. In general, I classify *populist skeptic frames* as any frames that both question the evidentiary basis of climate change and/or the need for climate policy action (skepticism) and emphasize the antagonistic relationship between elites and the public (populism). Given the lack of previous analyses of these media frames, I put forward several exploratory hypotheses related to identifying both the characteristics and prevalence of these populist skeptic frames in media communication around climate change.

First, considering the political context of the last decade and the attention given to leaders leveraging populist rhetoric (like Donald Trump) in the U.S., it is expected that populist messages will be pervasive in public debates (like the media) as they move beyond the political/party sphere (Rooduijn, 2014). Yet, even though populist leaders often become popular (or infamous) personalities with outsized media presences (Moffitt, 2016), the relationship between the media and populist messages beyond coverage of populist movements is still understudied (Nader, 2019). This distinction highlights the difference between populism *through* the media (coverage of populist leaders and movements) and populism *by* the media (the media's decision to frame issues using populist ideas and frames) (Hameleers et al., 2019). And the claims regarding the role of the media *itself* in the propagation of populist messages are still understudied. Although theoretical work on media populism suggests that the media will use populist framing in its coverage of issues, it could equally be expected that traditional sources of

media (that still occupy a dominant place in the U.S. media landscape) may avoid populist messages based on their status as elite institutions (Hameleers et al., 2019; Rooduijn, 2014).

I follow the “media populism” framework that argues that even non-populist outlets promote “anti-institutional cynicism” that can shift the framing of issues towards a more populist lens (Nader, 2019, 6). It is worth noting that, although I expect some level of populism across sources, it is unlikely that these frames have overtaken non-populist framing as communication around “radical politics” in America has been relatively stable over time (see Bonikowski, 2017).

### **H1a: Populist skeptic frames will appear in all media sources.**

Additionally, I consider the level to which populist skeptic frames have penetrated different media sources. As Rooduijn (2014, 730) succinctly states: “not all media are expected to be equally populist.” While the “media populism” framework would suggest some level of dissemination across sources, existing research suggests that the likelihood of populist frames in the media can vary based on the media source’s (1) ties to the political establishment, (2) market orientation, and (3) audience (Hameleers et al., 2019). Relevant to this study, media sources with stronger ties to the political establishment are less likely to use populist frames (Hameleers et al., 2019; Hallin & Mancini, 2004) and mass market sources (like *Fox News*) are more likely to cater to an audience that is more cynical and conflict-seeking than elite sources (newspapers). This is not to suggest that elite media sources will not have climate skeptic frames (as this likely differs in the U.S. by partisan leaning) but that the elite media is comparatively less likely to attack climate change through an *anti-establishment lens* (Rooduijn, 2014). Thus, it is expected that sources like mainstream newspapers will be less likely to spread populist frames compared to more mass market partisan sources like *Fox News* that present themselves as the “mouthpiece” of their viewership (Nader, 2019).



**H1b: *Fox News* will have a higher proportion of populist skeptic frames compared to newspaper sources.**

Beyond prevalence, identifying different populist skeptic frames is an essential task as many frames used in populist messages against climate change action have potentially grown out of past framing strategies (e.g. the above described science skeptic framing). Considering the adaptability of populist messages, and taking on an approach where populist communication around climate change may vary both in its quantity and its qualities, I follow Forchtner (2019) in connecting populist frames to different types of skepticism. In particular, I use Van Rensburg's (2015) taxonomy of skepticism containing "evidence skepticism" (skepticism towards scientific evidence of climate change), "process skepticism" (skepticism towards the "scientific, bureaucratic, and political processes behind mainstream climate science"), and "response skepticism" (skepticism towards responses, like policies, to the climate issue). I expect populist skeptic framing to feature all three types of skepticism with a particular emphasis on process skepticism.

**H2a: Populist skeptic frames will include multiple types of skepticism.**

The expectation that process skepticism will be the most common populist skeptic frame stems, in part, from the common use of conspiracy as a populist rhetorical tool. *Conspiracies* reduce the complexity of events and issues by creating deterministic explanations focused on the near-infinite power of some group (likely elites and co-conspirators) to manipulate outcomes for their own benefit (Castanho Silva et al., 2017). In the case of climate change, this likely includes narratives (1) framing climate change as a 'hoax' created by scientists for fame or to secure lucrative government funding and (2) describing action on climate change is a manufactured attempt by elites to seize more control over the public. These conspiracies (though not their link

to populism) have been highlighted in previous analyses of skeptic frames as critiques of the scientific and political processes that underlie process skepticism (Van Rensburg, 2015).

**H2b: The most common type of populist skeptic frame will use process skepticism.**

And finally, in addition to examining the different types of skepticism present in these populist skeptic frames, I take an exploratory look at how populist frames might change the nature of communication around climate change. I expect that, rather than introducing new topics or debates through which to understand climate change as an issue, populist frames will instead link existing frames to the broader populist narrative of elites versus the public. For example, research shows that—rather than being an independent dimension—populist attitudes tend to enhance the existing effects of partisanship on climate beliefs such that populist Democrats *support* climate policies more than non-populists, while populist Republicans *oppose* climate policies more than their non-populist counterparts (Huber, 2020). While this work does not look at framing, because of the aforementioned importance of congruence, it can be expected that populist messaging could follow a similar pattern.

**H3a: Articles using populist skeptic framing will not differ significantly in topic from those that do not use populist skeptic framing.**

Although I do not expect populist frames to shift the topics focused on by skeptic frames, many scholars have highlighted the potential challenge populism presents to democracy and democratic discourse (Müller, 2016). In particular, because populism has a Manichaeian or dualistic outlook that sees politics as a battle between good (public) and evil (elites), and conspiratorial language also tends to deterministically reduce complex topics to their most

extreme positions, I expect that populist frames will be more common in articles that completely deny the existence of climate change and/or reject any need for climate change mitigation. As part of this movement towards more “extreme” expressions of skepticism, I expect that populist frames are more likely to *intensify* rather than replace existing framing patterns.

**H3b: Populist skeptic frames will be more common in articles that completely reject the existence of climate change and/or the need for climate action compared to articles that express uncertainty about climate change or related actions.**

### **Research Design & Method**

I examine these hypotheses using a content analysis of multiple sources of climate change information from 2008 to 2020.<sup>4</sup> I had two major considerations for selecting the most suitable data for exploring my hypotheses. First, that the data sources cover both mainstream and partisan news sources to capture the climate change framing most likely consumed by both the general public and individuals with populist attitudes. And second, to highlight arguments around climate change skepticism, I emphasize sources that are likely to express explicit opinions rather than objective reporting (see Hoffman, 2011). For all sources, I searched the relevant database for the terms “global warming” OR “climate change” within the time period January 1, 2008 to September 1, 2020. Based on these criteria and data availability, I selected two major types of sources:

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<sup>4</sup> This time period was selected as it spans the presidency of both President Obama and President Trump, thus limiting the potential confound of anti-government attitudes based on presidential approval in both the left- and right-leaning press.

## Mainstream News – Newspaper Opinion Pieces

Because the “mainstream media,” in the current U.S. political environment, is often seen as an elite system by populists and other groups, it is important to understand how these mainstream media sources choose to engage with populist rhetoric. In particular, I identified editorials, op-eds, and letters to the editor as important sources of framing around high salience issues. Scholars highlight opinion articles as one of the “most central spaces in which public debates are carried out” (Rooduijn, 2014, 727; Day & Golan, 2005). These sources are particularly useful for capturing the framing of climate change by a broad range of opinion leaders and issue advocates. Rooduijn (2014) found that letters to the editor (at least in the context of western Europe) tend to be more radical, provocative, and populist than other news articles.

An important function of this source, too, is the editorial decision-making of the individual newspaper. By selecting multiple newspapers, I can not only account for the selection process of any one newspaper but also compare newspapers to one another to assess the differences in editorial selection. In selecting newspapers, I chose sources that were in the top ten for circulation (as of 2019) that represented a reasonable diversity of regions in the United States. Additionally, I selected the *Wall Street Journal* as a known outlier both in its news reporting and editorial coverage of climate change, with its editorial board—in particular—being known for rejecting the scientific consensus on climate change (Feldman et al., 2017; Elsasser & Dunlap, 2012). Thus, to complete this analysis, I collected a sample of editorials, op-eds, and letters to the editor from 5 major U.S. newspapers : *Boston Globe*, *Chicago Tribune*, *Los Angeles Times*, *New York Times*, and the *Wall Street Journal*. Each newspaper sample originally consisted of 50

articles selected by relevance (via Proquest Newstream), some articles were rejected as they were misidentified as climate change articles (final sample n = 229 articles).

### **Partisan News Programing – Fox News Network**

According to the 2019 Reuters Institute Digital News Report, although U.S. media consumption is not as polarized by populist vs. non-populist as it is on the left-right scale, populists are more likely to choose TV new sources as their main source of news (45% compared to 36% of non-populists). Additionally, this same report highlights that most major news outlets in the U.S. have a predominately left-leaning non-populist audience, with the exception of *Fox News* and *Breitbart*. Given these findings, and other work highlighting the particular role of *Fox News* in the American media diet (Morris, 2007; Jamison & Capella, 2008; Levendusky et al., 2013), programming from Fox News Network is the most suitable source of partisan news for this analysis. Thus, I collected a sample of transcripts from all *Fox News* programing fitting the criteria described above. As with the newspaper sample, the *Fox News* sample originally consisted of 250 articles selected by relevance (via the Nexis Uni) and some articles were rejected as misidentified (final sample n = 240 transcripts).

### **Content Analysis & Measuring Populism**

For this project, I focused on both coding the general perspective of the article in relation to climate change and identifying the framing patterns used within the article. First, I established the overall context using a set of codes at the article level. I captured the focus of the article (climate change vs. climate action) as well as the topic and position of the article relative to the issue. The topics were modified from a similar content analysis that measured different common

patterns of framing at the U.S. state level and encompass the most common issue frames found in previous scholarship (Jett & Raymond, 2021) (Table 3.1).

Table 3.1: Article Topics <sup>5</sup>	
Climate Science	Article focuses on scientific claims around climate change. This includes scientific evidence that ACC is certain/uncertain, climate change mechanisms, and apparent evidence (i.e. recent weather) that supports/undermines scientific claims.
Environment (non-human)	Article focuses on the effects (positive/negative/lack of effects) of climate change (or climate change action) on non-human communities. This includes habitat loss, threats to biodiversity, and impacts on natural systems (not connected to humans).
Non-economic human impacts	Article focuses on the non-economic impacts of climate change (or action) on human communities and individuals. This includes threats from ACC like drought, sea level rise, heat stress. Also includes loss of recreation (i.e. hunting, skiing), and public health concerns (i.e. poor air/water quality). Also includes human impacts of climate action, including loss of natural beauty to renewable energy structures (i.e. NIMBYs and wind farms).
Economic impacts	Article focuses on the economic impacts of climate change (or action) on individuals, businesses, and communities. This includes references to both macro- and micro- level economic effects. Includes references to overall economy (i.e. job losses and economic growth), business and individual effects (i.e. higher energy bills), and articles describing the overall competitiveness of the national economy vis-à-vis other international actors.
Morality/ Ethics/ Religion	Article focuses on the ethical dimension of climate change/climate action. This includes value-driven arguments around stewardship and climate change as a humanitarian crisis. Also includes articles focusing on the actions of religious leaders or statements by religious groups.

Additionally, I assessed how skeptical vs. convinced the articles are to contextualize any populist frames that occur within the article. This measure is modified from Van Rensburg's (2015) taxonomy of climate change skepticism and Hoffman's (2011) description of "skeptical"

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<sup>5</sup> Modified from Jett & Raymond's (2021) climate change framing codebook.

and “convinced” logics of climate change. Ultimately, this measure aims not only to capture whether an article supports or opposes climate change and/or action, but also the logical certainty of that argument. For example, while both “convinced” and “unsure” articles will support mainstream climate science and/or the need for climate action, a “convinced” article will articulate complete certainty while an “unsure” article will convey concerns regarding the certainty of the science or costs of action. For the measure of how convinced vs. skeptical the article is, this coding focused on the perspective of the author of the article or the presenter of the TV program. Although an article might present an argument in order to refute it, and in the *Fox News* sample many programs play clips of liberal politicians or bring on one dissenting guest, these do not count towards the logic of the article itself. For example, if the author or program host is completely convinced that climate change is not occurring this counts as a reject/dismiss article even if they fight with an opposing guest (Table 3.2).

Table 3.2: Skeptical vs. Convinced Logics	
Convinced	Document expresses <u>complete certainty</u> that anthropogenic climate change is real and there is a pressing need to act. Includes documents supporting climate science, as well as documents calling for increased action backed by the logic that climate change is real and poses a threat to either the environment or human populations.
Unsure	Although the document <u>largely supports</u> anthropogenic climate change/climate change action, also expresses concerns related to taking actions and/or describes limits to our knowledge of climate change science or human contribution to climate change. (Main argument still supports ACC and/or action on climate change.)
Neutral	<u>Unable to determine</u> the position of the document or document does not support either position. Includes documents that present <u>opposing positions</u> for and against ACC equally for “fairness” or “balance.”

Uncertain	Document <u>disputes or doubts</u> the high degree of consensus around climate science and/or the severity of climate change. Underplays the need for action or questions core claims of climate change science. Mild skepticism towards ACC or climate action. Includes statements that are agnostic towards climate change that discourage action.
Reject/Dismiss	The document <u>completely rejects or dismisses</u> the existence of anthropogenic climate change or the need for action. Gives evidence (scientific, anecdotal, etc.) that climate change is not happening, humans are not the cause, or climate change is beneficial and/or not a threat.

Following these article-level measures, I turned to the paragraph as the most appropriate coding unit for specific frames. Scholars of populism have coded a diverse array of units from sentences/quasi-sentences, statements, paragraphs to whole document assessments (e.g. Bernhard & Kriesi, 2019, Hawkins et al., 2019, and Rooduijn et al., 2014). I follow Rooduijn et al. (2014) in choosing paragraphs as the most suitable unit of analysis as many populist claims extend beyond a single sentence but other measures (like statements or themes) can be difficult to reliably extract from texts. Additionally, paragraphs “mark thematic discontinuities in texts” thus serving as objective markers of separation between arguments (Rooduijn et al., 2014, 566). Given the characteristics of TV versus print, for coding the *Fox News* transcripts I use the paragraph unit when possible (i.e. during longer speeches) but in times where that is inappropriate (i.e. during interviews) I instead use the individual speaking segments (when shorter than a paragraph) and ignore short interjections without substance.

To identify populist skeptic frames, I first coded for the different types of skeptic claims using Van Rensburg’s (2015) taxonomy (also see Forchtner, 2019). While Van Rensburg (2015) further breaks down the three main categories (evidence, process, and response) of skeptic claims into 7 sub-categories, I focused on coding into the larger groups (Table 3.3). Then I coded



for the presence of any of the three main dimensions of populism (people-centrism, anti-elitism, and popular sovereignty) within each paragraph using descriptions modified from the Comparative Manifestos Project (2017) (Table 3.4). I used their ideational approach to describe and measure populist discourse because, as Hawkins and Castanho Silva (2018) explain, this approach “lends itself to operationalization and measurement, because it identifies elements that should be present in a discourse for it be populist.”

While I code for all three populist dimensions described, I focus on anti-elitism and people-centrism as being the central concepts through which to identify populist messages (Rooduijn, 2014). As described in Chapter 2, while popular sovereignty is an important facet of populism, it has less scholarly consensus as the third dimension and is often replaced with a Manichean outlook (particularly in studies of populist attitudes) (see Castanho Silva et al., 2019). And some scholars describe these additional elements as being “essentially about the operationalization of the first two” and are mechanisms through which issues are politicized and “whereby people can be empowered and the elite dispossessed” (March, 2019, 53). Thus, similar to Rooduijn’s (2014) criteria for identifying something as populist, I identify populist skeptic frames as paragraphs with both a skeptic claim and a populist dimension that occur within articles containing statements that are both people centered and anti-elite. Rooduijn and Pauwels (2011) used a comparable method for identifying populist messages and demonstrated the validity of this approach with election manifestos.

Table 3.3: Skeptic Claims <sup>6</sup>	
Evidence	Skeptic challenge of the evidentiary basis of climate change. Includes skeptic claims that downplay or dismiss the scientific consensus around climate change, the connection between human activity and climate change, and the negative impacts of climate change on human and non-human populations. Also includes claims that climate change is beneficial.
Process	Skeptic critiques of both scientific knowledge generation processes and related climate decision-making processes. Includes discussions of conspiracies to manipulate or hide scientific evidence, political and media sensationalism, and that climate action has a hidden agenda of wealth redistribution from rich to poor countries.
Response	Skeptic arguments around matters of governance including the desired level of government regulation, the efficacy of policy instruments, and responsibility of the U.S. to take action (vis-à-vis the world).

Table 3.4: Populist Dimensions <sup>7</sup>	
People-centrism	References that positively valorize a homogenous people ('pure people'). In order for a statement to be populist, the 'people' should be described in an unambiguously positive light and should be portrayed as a unified entity.
Anti-elitism	References that negatively valorize a homogenous elite ('corrupt elite'). In order for a statement to be populist, it must mention elites and have a negative view towards elites in general.
Popular sovereignty	Statements calling for greater power given to the people (' <i>Volonté Générale</i> '). Includes broad calls for greater involvement by the people and claims for greater politicization in the name of the people.

For all coding, a frame only counts towards this analysis if it is expressing the view of the author, or the author makes the statement without refuting the claim. For example, if an article mentions Trump calling climate change a “hoax” but does so only to mock this point of view, it is not coded in this analysis. A reference to the populist or skeptic message without an

<sup>6</sup> Modified from van Rensburg's (2015) objects of skepticism.

<sup>7</sup> Modified from Team Populism's Comparative Manifestos Project (2017) codebook.

*endorsement* of it, therefore, is not coded (Rooduijn, 2019). Additionally, as the primary goal of this study is to look at the patterns and prevalence of populist *skeptic* frames, if the paragraph had a populist dimension but no skeptic claim it is not coded. Also, while articles can contain multiple frames, each paragraph can only have one type of skeptic frame. Finally, for articles that have multiple stories or segments, only the portion of the article or transcript that pertains to climate change is coded.

## Results

For the media opinion pieces, I coded 229 articles from 5 publications: *Boston Globe* (n=44), *Chicago Tribune* (n=36), *Los Angeles Times* (n=49), *New York Times* (n=50), and the *Wall Street Journal* (n=50). Within these articles I coded 2,035 paragraphs, with an average of approximately 9 paragraphs per article. The considerable majority of articles in this sample were editorials versus a minority of letters to the editor. Article length did not vary significantly in either total length or paragraph count by newspaper. The average *Fox News* transcript was significantly longer than the newspaper opinion pieces, with an average of 23 paragraphs per transcript (for a total of 5,681 paragraphs).

Although I described the news sources in terms of mainstream and partisan sources, for most analyses I present the results of the content analysis in three separate groups: newspapers (except the *WSJ*), the *Wall Street Journal*, and *Fox News*. This is due to the distinct differences in climate change framing between the other mainstream newspapers and the *Wall Street Journal*. And likewise, although scholars have described both *Fox News* and the *Wall Street Journal* as part of the “conservative media establishment” (Jamieson & Cappella, 2008; Elsasser & Dunlap, 2013) for this analysis it is useful to treat them separately given the different

expectations based on outlet type (e.g. television is expected to more commonly use populist messages, see Rooduijn, 2014) and the differences in both audience composition and connection to the mainstream establishment described in the above sections.

For illustration, the differences in skeptic vs. convinced logics demonstrates the distinction between the four other newspapers compared to the *Wall Street Journal* and *Fox News* (Figure 3.1). For the *Boston Globe*, *Chicago Tribune*, *Los Angeles Times*, and *New York Times*, the significant majority of articles fell in the “convinced” logic (~94% of articles), meaning the article expressed *complete certainty* that anthropogenic climate change is real and there is a pressing need to act.<sup>8</sup> Comparatively, ~97% of articles from the *Wall Street Journal* and *Fox News* programming stem from a skeptic logic of either disputing (uncertain) or outright rejecting (reject/dismiss) the high degree of consensus around climate science and/or the severity of climate change (see Appendix B for additional article-level patterns).

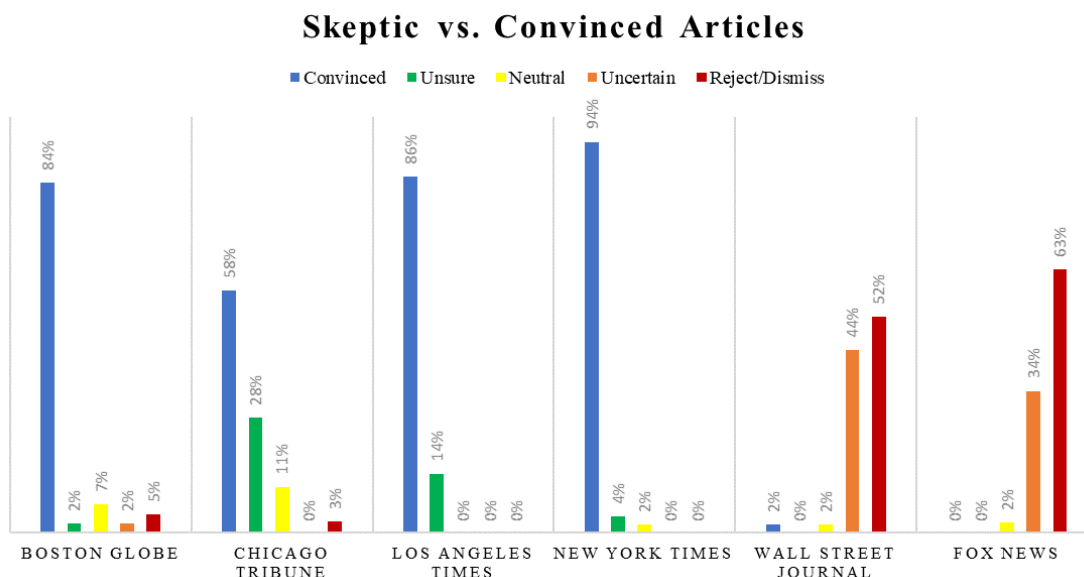


Figure 3.1: Skeptic vs. Convinced by Source and Article

<sup>8</sup> Given the opinion-based nature of the article types coded, very few articles in any newspaper or *Fox News* expressed no opinion (Neutral) regarding climate change or climate action.

## Prevalence Populist Framing – H1

Examining the characteristics of individual frames, I turn first to the overall prevalence of non-populist and populist frames. To explore the prevalence of the different frame types, I separated the individual paragraphs of each article into three categories: (1) those with no skeptic frame, (2) those with only a skeptic claim, and (3) those with both a skeptic claim and a dimension of populism. I find that non-populist frames are more common than populist frames across all sources (see Figure 3.2).

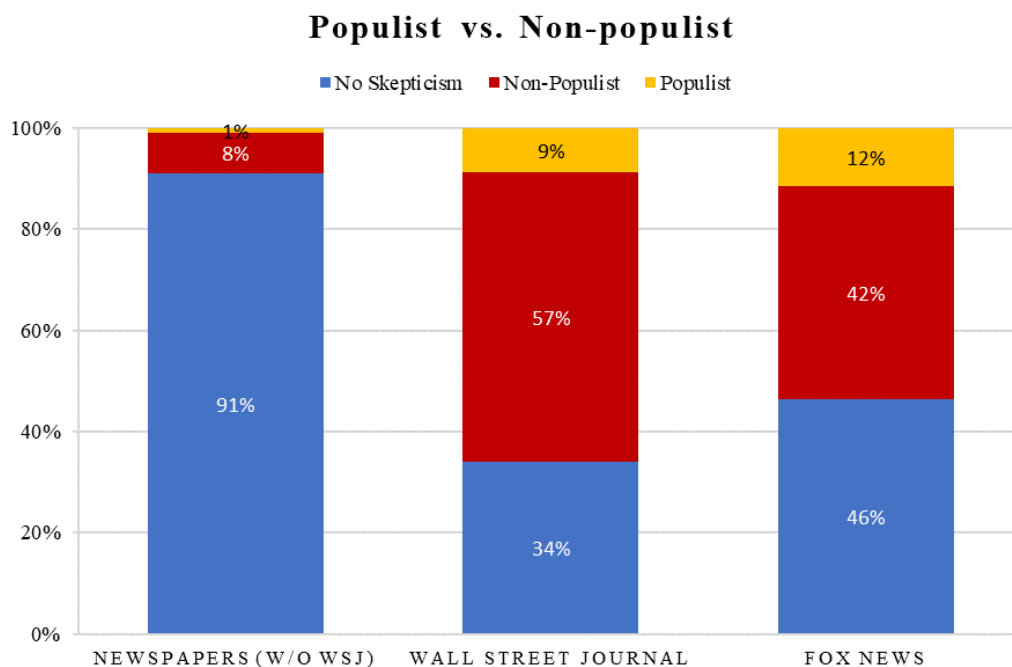


Figure 3.2: Skeptic Frames by Paragraph

Looking at the proportion of non-populist to populist skeptic frames, I aggregated four of the newspapers (*Boston Globe*, *Chicago Tribune*, *Los Angeles Times*, and *New York Times*), given the limited number of skeptic claims in those samples overall. I find limited support for both H1a and support for H1b (Figure 3.3). Across all sources, non-populist frames are more

common than populist frames and the prevalence and distribution of populist skeptic frames varies between sources. *Fox News* has the highest proportion of skeptic frames that contain dimensions of populism with 21% of skeptic frames containing either an anti-elite or people-centered argument. One limitation to this finding is that there were no populist skeptic frames in either the *Los Angeles Times* or the *New York Times*, but this likely results from the rarity of any skeptic frames in those samples as within the combined total sample of both newspapers there were less than 35 paragraphs with skeptic claims of any type (from a sample of 750 paragraphs).

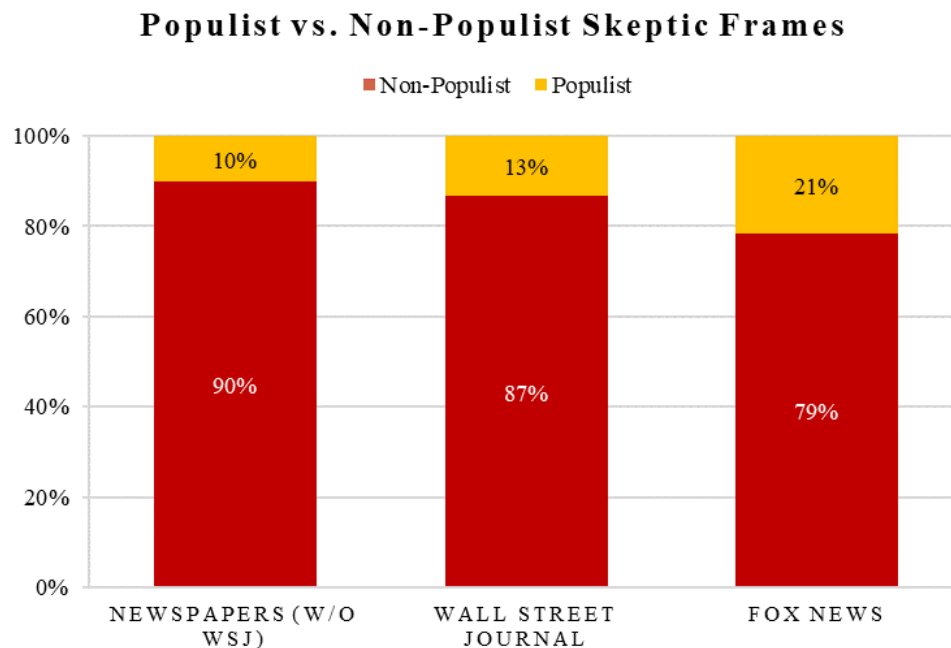


Figure 3.3: Proportion of Populist vs. Non-Populist Skeptic Frames by Paragraph

## Types of Skepticism – H2

Moving to look at the different skeptic claims present within these frames, I find support for both H2a and H2b (Figure 3.4). There are examples of all three types of climate skepticism in the populist framing of climate change. Populist evidence skepticism was least common (14%).

Across the full sample, 65% of the populist skeptic frames relied on process skepticism. Process skeptic frames make claims questioning the scientific or political processes around climate change knowledge generation and include claims that a lucrative climate industry exists, the media is sensationalizing climate change and distorting public opinion, and political actors are interfering with scientific processes. A common example of the **non-populist** process skeptic frame is the argument that scientists are suppressing data or that the models used to predict climate change are not as certain as they are described to be. For example, a 2009 story about “Climategate” on *Fox News* described the scandal and how “the original raw data used to create these models has been destroyed or otherwise disposed of” and the impact this would have on the reliability of subsequent climate models.

By contrast, a **populist** variant of that same process skeptic frame from Hannity in 2014 questions the scientific knowledge generation process and the validity of climate modeling data but also describes “scientists laughing from their lavish laboratories” as “tens of billions [of dollars are] 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.” Similarly, another common populist variant to the process skeptic frame describes political tampering in the scientific process: “And so it becomes self-perpetuating. Now global warming is a cosm, it's not a microcosm. It's a pretty big cosm -- cosmos -- in this constellation, but there are other issues that the government just abuses science to take people's stuff, if you don't mind, and that governments distort in service of a political end” (*Fox News*, 2018).

The *Wall Street Journal* had the most even distribution of populist skeptic frame types with 43% process and 41% response skeptic frames. The more even distribution in the *Wall Street Journal* likely reflects its focus on economics, which would relate more to skepticism

around the policy responses to climate change and potential trade-offs. For example, one populist response skeptic frame in 2019 criticized carbon taxes saying: “Carbon tax proposals promise to refund the money to taxpayers. But this is Washington we’re talking about. How long before Congress begins capturing an increasing portion of this revenue windfall to fund pet projects or the general budget?” By contrast, even though the most common non-populist frame on *Fox News* uses evidence-based skeptic claims, the most common populist skeptic frame uses process skepticism (71% of populist skeptic frames use process skepticism versus 14% using evidence skepticism). The results for the aggregate newspaper sample (without *WSJ*) are driven primarily by the *Boston Globe* (with 10 populist process skeptic frames), but the rarity of skeptic frames (either populist or non-populist) in these publications limits the interpretability of these results.

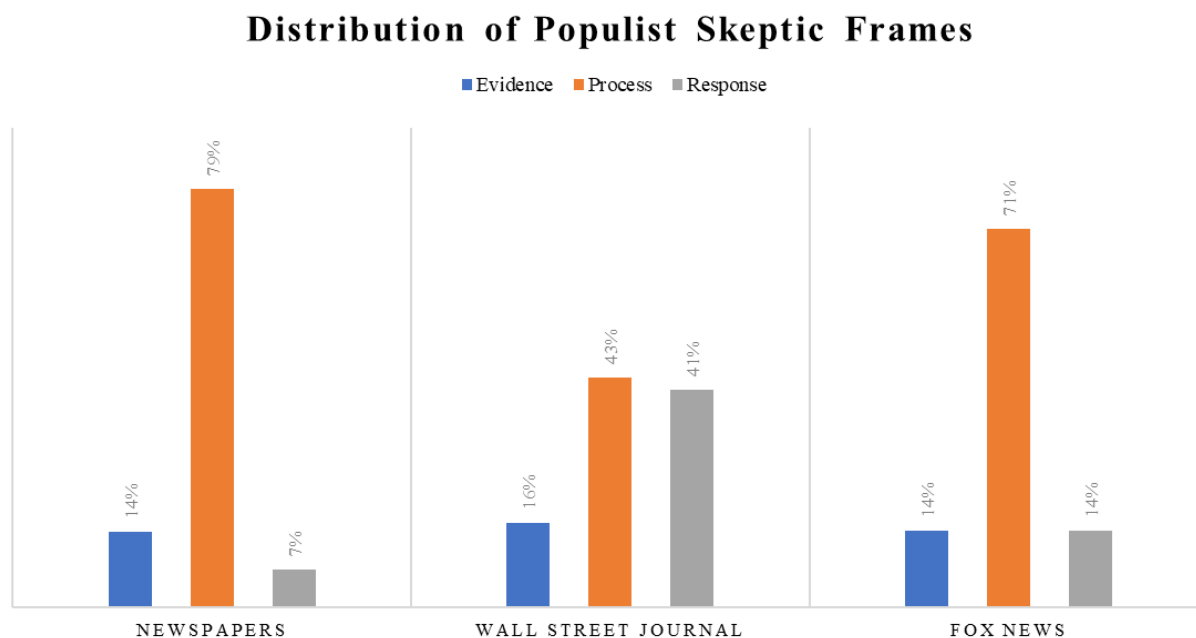


Figure 3.4: Populist Skeptic Frames by Paragraph



### Intensity & Topic Differences – H3

I find preliminary support for H3b (Figure 3.5). Looking at the article level, populist skeptic frames are distributed across articles almost identically to non-populist frames.

I find support for H3b, that populist frames will be more common in articles that completely reject or dismiss climate change or action (Table 3.5). Looking at the aggregate sample, 85% of populist skeptic frames occur in articles that reject or dismiss climate change. The *Wall Street Journal* sample, as a whole, has a near even split between articles that are “uncertain” and articles that outright “reject” climate change, populist frames are over twice as likely to appear in articles that reject climate change (72%) compared to those that express a more uncertain position that only disputes the consensus around climate change and need to act (28%).

That relationship is even more stark in the *Fox News* sample, with 89% of populist skeptic frames occurring in articles that completely reject or dismiss the existence of anthropogenic climate change or the need for action. This hypothesis is not confirmed for the mainstream newspaper sample (without the *WSJ*), though this might be due to both the lack of articles opposing climate change in those sources and the limited number of skeptic frames, so it is difficult to interpret this finding. Overall, this indicates that populist skeptic frames are not shifting the topic of communication around climate change—such as moving the topic from considerations of science to economics—but instead shifting the intensity of the argument and the skeptic claims through which oppositional arguments are made (away from evidence skepticism towards process skepticism).

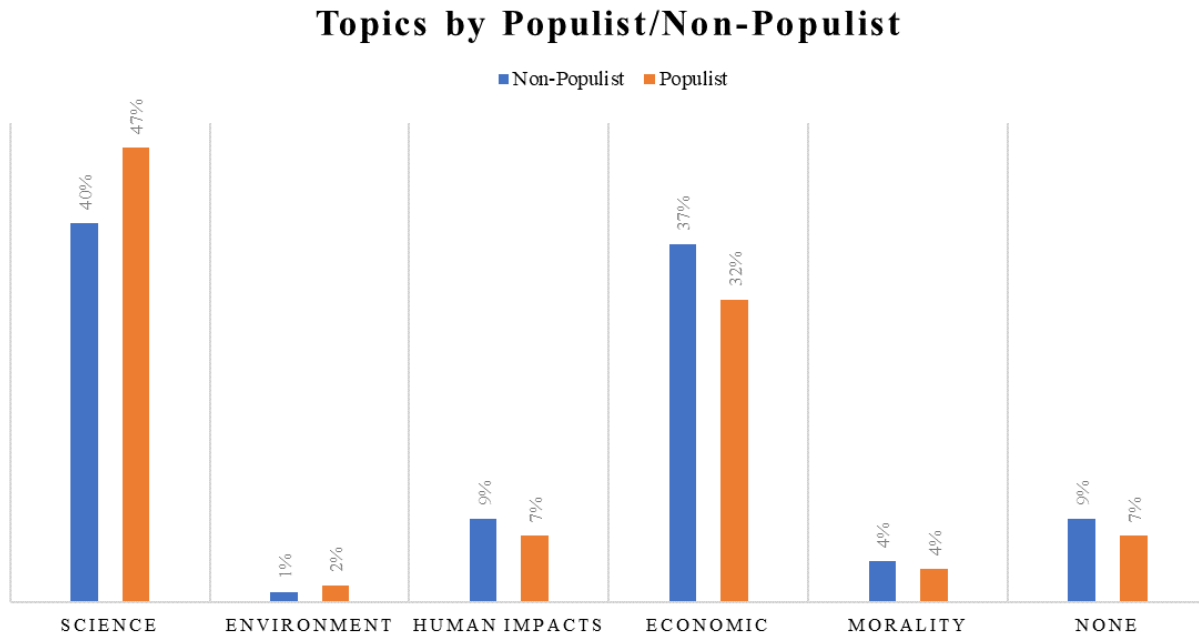


Figure 3.5: Topic Differences by Article

Table 3.5: Context of Populist Skeptic Frames				
	Newspapers	WSJ	Fox News	Total
Neutral	53%	0%	0%	4%
Uncertain	21%	28%	11%	15%
Reject	26%	72%	89%	85%

## Discussion & Conclusions

I find mixed support for my hypotheses. First, non-populist frames are more common than populist frames, and there are some sources (notably the *New York Times* and *Los Angeles Times*) where populist framing is completely absent (H1a). *Fox News* has the largest prevalence of populist skeptic frames of any media source, supporting H1b, followed by the *Wall Street Journal*. I also found that populist skeptic frames targeted multiple types of skepticism

(evidence, process, and response) and the most common populist skeptic frame leveraged process skeptic arguments (supporting H2a and H2b).

Additionally, I found that populist frames were most common in articles with an overall stance towards climate change of complete rejection and/or dismissal of climate change and/or action (H3a). This result is not evident in the mainstream newspapers (other than the *WSJ*), but this is likely due to the infrequency of articles in opposition to climate change in those samples. And finally, I found that the frequency of article topics does not meaningfully differ between articles using populist skeptic frames and those using only non-populist skeptic frames (H3b).

These results respond to calls in the literature to both (1) analyze the theoretical arguments around the role of “media outlets actively engag[ing] in populist coverage of political and social issues (Hameleers et al., 2019, 1159; Krämer, 2014) and (2) examine the relationship between far-right politics and diverse forms of climate skepticism (Forchtner, 2019). To this end, these findings support the concept of media populism, in which populist messages and viewpoints are conveyed *by* the media (Bos & Brants, 2014; Krämer, 2014), at least in the cases of the opinion sections of the *Wall Street Journal* and *Fox News* programming.

While the presence of populism is less surprising in *Fox News* based on audience demands and distance from the political establishment, it is more surprising that an elite media source like the *Wall Street Journal* would take on such populist arguments. Conventional wisdom would suggest that, even though the *Wall Street Journal*’s editorial board is known for its rejection of mainstream climate science (Feldman et al., 2017; Elsasser & Dunlap, 2012) their elite status would still limit their use of populist rhetoric in those climate skeptic arguments. Rooduijn (2014)—looking at news stories broadly—also found no difference in populist messages between tabloid and elite media (newspaper) stories in Western Europe. While *Fox*

*News* did have more populist frames than the *Wall Street Journal*, this suggests, as Rooduijn (2014, 741) describes, that the differences in populist framing across media sources may not be “as clear-cut as some scholars tend to believe.”

The finding that populist climate skeptic messages were present in multiple sources (and particularly the *Wall Street Journal*) supports the burgeoning literature emphasizing the increasing role of far-right and populist politics in climate change skepticism (Forschner, 2019; Lockwood, 2018). However, this study also shows that non-populist skeptic frames are still more common than populist skeptic frames across all sources. It is equally important not to overstate the prevalence of populist climate skeptic messages within the U.S. media. Rather than a “pervasive mediatized populist zeitgeist” (Hameleers et al, 2019, 1160), we should consider why these frames seem to draw attention within climate change communication. What is the particular character of these populist skeptic frames that might make them noteworthy or influential compared to non-populist skeptic frames?

The preliminary findings of this study suggest that populist skeptic framing might be contributing to the ever-increasing polarization of climate change communication, which scholars warn will increasingly limit meaningful dialogue and problem solving on climate change (Hoffman, 2011). Likewise, as discussed in Chapter 2, the introduction of populist ideas to climate change skepticism may link climate change as an issue to broader populist grievances regarding the moral division between the “good” public and “evil” elites. So, even if these frames are not shifting attitudes, they may contribute to an overall narrative that further intrenches climate change as an issue and promotes policy inaction.

This study also empirically supports Forchtner’s (2019) suggestion that climate change skepticism, in the context of the far-right, is multifaceted. As he describes, the far right does not

only deny the existence of climate change (evidence skepticism), but also expresses skepticism about the political and scientific processes of climate science (process skepticism) and the policy responses to climate change as an issue (response skepticism) (Forchtner, 2019). My results support Forchtner's (2019) claims—at least in the case of populist skeptic frames in U.S. media—particularly regarding the expansion of climate skeptic frames to include process skepticism as a center of skeptic critique.

The striking presence of populist *process* skeptic frames also builds on previous analyses of skeptic messaging in the U.S. (e.g. Cann & Raymond, 2018; McCright & Dunlap, 2000). The heightened presence of process skeptic framing may increase the audience for skeptic arguments against climate action—particularly when combined with populist messages—as process skepticism is open to “skeptics and non-skeptics alike” (Van Rensburg, 2015, 4).<sup>9</sup> In other words, individuals can hold process skeptic attitudes even when they believe in anthropogenic climate change, which may act as an obstacle to climate mitigation efforts (and explain continued resistance to climate policies) even as scholars mark decreases in evidence skepticism (Ballew et al., 2019).

Additionally, identifying skeptic's “extended” critiques, and examining how they differ from evidence skepticism, is vital to understanding how to communicate with skeptics and promote constructive engagement (Van Rensburg, 2015). As I describe in chapter 2, it is potentially dangerous for successful pro-climate communication to treat all science-based skepticism as equal. Skepticism aimed at scientific *evidence* may require very different counterstrategies compared to skepticism aimed at scientists and scientific *processes* for effectively responding to these claims. Misconstruing process skeptic frames prominently

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<sup>9</sup> Though it is worth noting that the “extreme” nature of many of these *populist* process skeptic frames might limit the ability for these frames to reach new audiences as Van Rensburg (2015) describes.

featured in populist frames—particularly those focusing on the conspiratorial actions of scientists in collusion with political elites—as part of a scientific debate (of the evidence) could lead to responses focused on scientific information. Yet, additional scientific information is unlikely to be persuasive if the root skepticism questions the overarching credibility of climate science efforts or is founded on assumptions that climate science is being manipulated by political elites to deceive the public.

While this study provides evidence that populist skeptic frames are a part of skeptic communication in the media, at least in the *Wall Street Journal* and *Fox News*, there are also several limitations to this study. First, the sample of news sources is limited and focuses primarily on newspapers. Although I also include *Fox News* as a TV source, I do not include any internet sources or a comparable liberal-leaning TV source. Additionally, I defined populist frames based solely on the presence of the main dimensions of populism. While this technique follows new advancements in the measurement of populism (March, 2019), scholars have also criticized this approach for “degreeism” and its inability to truly distinguish populist and non-populist actors (Pappas, 2016). Moreover, although this is a useful method for maintaining construct validity and preventing the overestimation of populist frames (see Hameleers et al., 2019), it also limits the potential indicators of populist communication.

Despite these limitations, this content analysis provides empirical evidence regarding the diversity of populist skeptic frames in media communication on climate change and extends research on media populism by examining the media’s usage of populist messages in a particular issue space. As noted above, the common use of *process* skepticism in populist framing compared to non-populist framing, illustrates how the media’s framing of climate change through a populist lens may center climate skepticism on broader populist beliefs of a conspiring

elite rather than questions of scientific certainty. Additionally, populist messages describing a self-interested elite class may reenforce beliefs that climate policies will be detrimental to the economy and adversely affect individuals if enacted. Combined with the significant presence of populist frames in articles completely rejecting climate change, this finding suggests that future work is needed to understand both the changes in communication patterns caused by populist framing of climate change and the effects of these frames on individual attitudes.

## CHAPTER 4. THE EFFECTS OF POPULIST PROCESS SKEPTIC FRAMING ON CLIMATE ATTITUDES

Do populist skeptic messages influence attitudes towards climate change? As described in previous chapters, populist messages have become an important part of media communication in opposition to both the scientific consensus on climate change and climate change mitigation through policy action. The media's use of populist skeptic messages connects to both larger trends of the global rise of populist political actors and related communication (de la Torre, 2015; Rooduijn, 2014; March, 2019), and work emphasizing the relationship between right-wing populism and climate skepticism (Forchtner, 2019; Lockwood, 2018).

Existing scholarship suggests populism could be particularly impactful on climate attitudes because climate change as an issue is distant, technical, and elite-driven (Huber, 2020). Additionally, populist frames are often more powerful in contested contexts—like climate change in the U.S.—where the unresponsiveness of elites can be emphasized and blame attribution can be specifically applied (Huber et al., 2020). In other words, populist framing is *most* effective when it can be applied to a specific context, rather than generally, particularly if that context is suitable for populist rebranding as part of the larger societal battle between the 'good' people and 'corrupt' elite (Mudde, 2004; Hawkins & Kaltwasser, 2018; Huber et al., 2020).

A few studies have explored how populist attitudes may be activated in the context of climate change. Namely, work from Huber et al. (2020) focuses on blame attribution as the key mechanism through which populist frames might activate populist attitudes and reduce support for climate policy. Huber et al. (2020) test this relationship with an experimental design and find that highlighting elite *responsiveness* increased respondents support for climate policies, while



emphasizing *non-responsiveness* did not affect policy support. In their conclusions, Huber et al. (2020) emphasize that, while this is ‘good news’ for climate policy, there were several design limitations that might have constrained the populist frame’s effectiveness, including a lack of ideological content or rhetoric that would be more consistent with real-world populist messages.

I build on Huber et al.’s (2020) findings by testing how populist skeptic frames frequently used in the media may be shaping attitudes towards climate issues. Instead of the blame attribution highlighted by Huber et al. (2020), I turn to the common presence of process skepticism (e.g. skeptic critiques of the scientific and political processes underlying mainstream climate science) identified in populist climate skeptic frames in the U.S. media (see Chapter 3).

In particular, I test the effects of a populist process skeptic frame (the most common populist skeptic frame) against both a control and a non-populist evidence skeptic frame (the most common non-populist skeptic frame). This study is designed to simulate the changes in communication brought on by the presence of populist framing in the media. From this, the overarching goal of this design is to understand the effects of populist process skeptic frames—particularly those commonly found in the *Wall Street Journal* and *Fox News*—compared to the effects of both a more traditional evidence skeptic frame and a control condition.

Following the two-stage technique developed by March (2019), I take the results from the traditional content analysis of the previous chapter and complete a qualitative analysis of major themes within the identified populist process skeptic frames. As Hawkins & Kaltwasser (2018, 17) describe, qualitative text analysis—in combination with the ideational framework—is necessary to “flesh out the substance of populism in specific contexts” and identify who constitutes “the people,” what groups are the “elite,” and how they interact in a policy space. I

use these insights to inform the design of a survey experiment where I examine the effects of similar framing on individuals' climate change beliefs and policy attitudes.

In taking on this approach, I resolve some of the limitations of Huber et al.'s (2020) study and add to this developing literature by investigating the effects of process skepticism introduced through populist framing on individuals' attitudes towards climate change and related policies. In the qualitative content analysis, I identify two major themes: climate change as a "religion" and a means of control. Additionally, I call attention to the pronounced use of conspiracy theories in populist process skepticism, linking back to the "hoax" framing discussed in Chapter 2.

Using these identified framing patterns to design a survey experiment, I find that populist attitudes enhance the effects of partisanship, at least in Republicans, partially replicating Huber et al.'s (2020) finding. Additionally, I find limited evidence suggesting exposure to populist process skeptic framing may negatively influence climate change belief in Republicans compared to a non-populist evidence skeptic frame. I find that exposure to populist process skeptic framing is less likely to be influential on Democrats' attitudes, and the effects do not seem to be moderated by the individual's populist attitudes. Finally, following the use of conspiracy in the media sample, I take an exploratory look at the role of belief in conspiracy theories on climate attitudes. I find that conspiracist ideation operates independently from partisanship, and both Democrats and Republicans high in conspiratorial ideation are less likely to believe in climate change and support policy action.

### **Qualitative Text Analysis: Process Skepticism & Populist Framing**

As discussed in Chapter 2, *climate change skepticism* refers to *arguments* or *attitudes* related to the rejection or questioning of the core theses that climate change is occurring, is

anthropogenic, and will negatively impact both human and non-human populations (Van Rensburg, 2015). Stemming from that basic conceptualization, scholars have examined different ways of breaking down the concept to understand why people are skeptic (Morrison et al, 2015; Pidgeon, 2012), how skepticism spreads (Rode et al, 2021; Kousser & Tranter, 2018), and the best ways of responding to different skeptic claims (McCright et al., 2016).

Climate skeptic arguments often come in the form of diverse frames—from denying the evidentiary basis of climate science to questioning the value of climate action compared to economic costs—and have been documented in both the media and interest group documents (Boussalis & Coan, 2016; Cann & Raymond, 2018; Jett & Raymond, 2021). And climate skeptic messages (or frames) are intricately connected to skeptic attitudes, as scholars have demonstrated the different ways framing can both motivate or limit skeptic responses (see Li & Su, 2018 for meta-analysis of experimental framing effects).

Among scholars seeking to build a stronger conceptualization of climate skepticism, Capstick and Pidgeon (2014) identify “two broad treatments” of the concept: epistemic and response skepticism. In their treatment of skepticism, *epistemic skepticism* (similar to the evidence skepticism identified in other typologies) refers to “doubts about the status of climate change as a scientific and physical phenomenon” and *response skepticism* which relates to “doubts about the efficacy of action taken to address climate change” (Capstick & Pidgeon, 2014, 389). Building on that work, Van Rensburg (2015) proposes a further delineation of skepticism and the isolation of process skepticism as a third distinct skeptic center. *Process skepticism* refers to doubts concerning the integrity of the scientific and political processes underlying the evidence for human-caused climate change and the development of policy responses (Van Rensburg, 2015).

Capstick & Pidgeon (2014) place process-related claims—like doubts of the conduct of scientists or the politicized portrayal of climate change—in the same “epistemic” category as more traditional skepticism regarding the scientific evidence of climate change. Van Rensburg (2015) argues that further typologizing climate skepticism—and separating out process skepticism—is useful for understanding non-skeptic partisans who, while believing in anthropogenic climate change, also oppose climate action due to “perceived deficiencies in the processes behind climate science and/or climate policy responses” (Van Rensburg, 2015, 2). Moreover, as I describe in Chapter 2, identifying process skepticism as a separate logical center from evidence skepticism may prevent the misinterpretation of “extended” skeptic critiques as additional evidence-based claims.

## **Secondary Analysis of Media Sample**

Chapter 3 identifies process skeptic frames as an important part of the rebranding of climate change through a populist lens. So, *why* are these process skeptic claims common in populist framing opposing climate change? Not only is climate change psychologically, spatially, and temporally distant from everyday life, but it is also highly technical and elite-driven (Weber, 2016). The evidence that climate change is even an issue is based on scientists producing highly technical reports (e.g. the IPCC). Then, international policy responses are often negotiated through agreements (e.g. the Paris Agreement) perceived as disconnected from in-country democratic processes. Because populist frames can label different groups as part of a “conspiring elite,” populist frames can easily “portray policymakers, scientists, and climate activists as a detached elite that is failing to meet the needs of the average American” (Huber et al., 2020).

This populist presentation of elites as a dishonest, conniving group directly aligns with process skeptic claims describing the public is being intentionally misled and that “public decision-making processes are distorted” regarding climate change (Van Rensburg, 2015, 4). In Chapter 3, I find that populist framing is most commonly found with process skepticism. This finding usefully identifies one of the ways populist framing patterns differ from non-populist framing in the media. Yet, there are many ways these populist process skeptic frames could manifest, from focusing on the scientific data generation process and conspiracies of scientists to government-led efforts to deceive the public for political power. Likewise, identifying the accompanying rhetorical tools (e.g. the stylistic techniques used to convey meaning to a consumer) may be vital to understanding the effects of these frames on individual attitudes.

To understand how these populist representations of politics and process skeptic frames intersect, I return to the media sample from Chapter 3. A similar secondary analysis of populist coded data was completed by March (2019), who demonstrated that this technique strengthens the text analysis approach developed by ideational scholars (and used in Chapter 3). It adds to the ideational approach to studying populism in text by “providing more detailed and nuanced judgements” identifying different themes within populist frames and how different “elements interrelate” (March, 2019, 63). Given that populism is a relational concept, this supports a fuller understanding of what populism looks like in a given context and the different ways populist ideas can manifest.

Using the media sample from Chapter 3, key themes were identified using a secondary analysis of the previously identified populist process skeptic frames. First, during the original content analysis coding, I took notes regarding different themes and trends observed in the articles. Then, following the results of the previous analysis (Chapter 3), I re-identified populist

process skeptic frames in the text and evaluated what common thematic patterns were present within the process skeptic frames and the articles that use these messages. From this, I identified two common themes that appeared in populist process skeptic frames and surrounding text: (1) climate change activism as a “religion” and (2) climate action as a means of control. Additionally, I noted the consistent use of conspiracy-laden rhetoric in these frames, which I discuss below.

### ***Key Theme: Climate Change as a Religion***

The first key theme identified in populist process skeptic messages are frames that warn of the dangerous “fixed bayonets of the global warming theocracy” (WSJ, 2008). These frames often build on messages that describe climate change as a ‘scare tactic’ (McCright & Dunlap, 2000) and frame climate dissenters as martyrs of (or for) the people. Similar patterns of using religious metaphors to undermine climate science have been studied both in blog posts (Nerlich, 2010) and opinion-page content in UK newspapers (Atanasova & Koteyko, 2017). Populist skeptic frames use religion to describe climate change action as part of a “secular progressive agenda” to “turn earth into God” and transfer wealth “to the third world and elsewhere according to how the global elites see fit” (Fox News, 2016). Scholars have identified religion as a common metaphor used by far-right groups to attack proponents of climate change policy, particularly because the climate can be connected to “mother nature” and other easily abstracted myths (Forchtner and Kølvråa, 2015; Forchtner, 2019).

Religious themes within the populist process skeptic frames were most common in *Fox News* but were present to a lesser extent across sources. For example, in 2017 an editorial in the *Boston Globe* stated: “In the church of climate alarmism, there may be no heresy more dangerous

than the idea that the world will benefit from warming. Zealous preachers seek to scare their flock with forecasts of catastrophe, horror, and threats to civilization. Anyone who demurs is denounced as an apostate: an anti-science ‘denier.’” Similarly, Jesse Watters (*Fox News*, 2019) described how messages of the climate crisis seek to scare children:

“You know this reminds me of about a thousand years ago, you’ve had all these tribes, you know if there was a drought, they would sacrifice an animal and then they would pray because they thought that they had made the rain gods angry. This is now what we’re doing in 2019. This is the new religion. And the left scares children into freaking out about climate change. Then they shoot video of them freaking out about climate change. And then they say, look at the children freaking out. We have to do something about climate change.

They’ve become props. And the reason it doesn’t work with adults is because adults are old enough to remember when the left told us we needed to freak out about global cooling...”

As part of skepticism towards the processes around climate science and action, these religious themes are used to describe the willingness of scientists and politicians to manipulate evidence to maintain their position and deceive the people. Skeptic frames leveraging these religious messages position climate advocates as “zealots” who misrepresent science certainty and overhype climate change to support their “climate-change orthodoxy” (*WSJ*, 2017).

Describing the battle between climate scientists and ‘deniers’ Charles Hurt, on *Fox News* in 2016, says: “I think it’s not a shocking argument to say that a lot of this climate change stuff has become something of a religion on the left. And it’s a religion within the EPA and the energy department. And I think that, you know, obviously, the cabinet people are doing their best to kind of frighten voters...”

Building on this, several frames in this vein also warn of what will happen if anyone opposes these ‘climate beliefs.’ For example, in a 2015 *Wall Street Journal* editorial, climate change is described as “the new religion on the left” and the editorial warns that “progressives are going to treat heretics like Cromwell did Catholics.” And lastly, these messages are often

framed as a means of controlling public discourse and opinion with retribution for any who oppose the juggernaut of organized climate religion. Or, as said on *Fox News* in 2017: “Their solution is, I’m going to be the priest of global warming religion and I will control everyone else’s life. I’ll tell you what to drive, how to eat, how to live and I’ll be your savior.”

### ***Key Theme: Climate Change as a Means of Control***

This final description of “climate religion” leads directly into the second key theme present within the populist process skeptic frames: messages describing climate policies as designed to *seize control* of the people and/or the market. As highlighted by Forchtner and Kølvråa (2015), far-right climate messages often center around concerns over national independence and sovereignty threatened by international climate policy. Likewise, populist messages are equally concerned with the undue power of the elite class over the people in politics and society.

Within the sample of populist process skeptic frames, climate policy is described as a means of control across multiple levels of government and elite groups. First, the “controlling group” can refer to scientists or “climate liberals” 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” (*WSJ*, 2014). This type of control is typically present in references to an elite conspiracy seeking to control the means of climate knowledge production.

Likewise, this populist concern about control extends to international organizations interfering with state sovereignty. In a discussion about the Kyoto Accords, former ambassador John Bolton described international agreements as a way to bypass the U.S. government saying: “climate change is a perfect example of how it works. The people who want, whether it’s cap-



and-trade or carbon taxes or any of a variety of ways that can be used to have greater control over what businesses decide and what consumers do, this is the perfect opportunity” (*Fox News*, 2009). Similarly, a *Wall Street Journal* editorial, in 2015, described “the grandiose claims of triumph in Paris” as representing “the self-interest of a political elite that wants more control over the private economy in the U.S. and around the world.”

Building on this, another common version of this control frame—particularly prevalent in *Fox News*—are messages describing climate action as part of a socialist agenda to take down capitalism. For example, Sean Hannity (2019) describes how the Green New Deal is “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.” As part of this frame, climate change is described as a tool for implementing other controls over the people or economy like in this 2009 exchange between Jonah Goldberg and Sean Hannity on *Fox News*:

GOLDBERG: That's one of the problems. Global warming is used as a Trojan horse to sneak in all of these other arguments about things. And foreign oil should not actually have anything to do with the global warming argument. But the global warming guys, what they want to do is they want to say it's good for all of these reasons.

HANNITY: Yes, but there's a motivation. Isn't it an anti-capitalist agenda?

GOLDBERG: Exactly.

HANNITY: That's what it is.

GOLDBERG: And it's a centralized state control of everything possible.

### ***The Role of Conspiracy Theories***

*Conspiracy* can be defined as “a secret arrangement between two or more actors to usurp political or economic power, violate established rights, hoard vital secrets, or unlawfully alter

government institutions in such a way as would benefit themselves at the expense of the common good” (Uscinski et al, 2017, see also Keeley, 1999; Uscinski & Parent, 2014). Conspiracy theories, then, are unsubstantiated explanations of issues or events that center the main causal factor on powerful groups plotting in secret with malevolent intent (Uscinski et al., 2017; Uscinski & Parent, 2014). As previously discussed in Chapter 2, conspiracy is a common rhetorical tool in populist messaging, such that many conspiracy theories can be thought of as “variations” on the “theme” of populism (Castanho Silva et al., 2017, 425).

Given that conspiracy theories often have a certain logical or rhetorical style (Byford, 2014) that may shape both their interpretation of events and how they interact with future messages, users of conspiratorial rhetoric can undermine key actors both in disseminating scientific information (like scientists and the media) and making policy decisions (like political elites) all while tapping into a latent “conspiratorial mindset.” Looking at the use of conspiracy theories in this sample, the findings largely support work highlighting that populists tend to believe that there are “malevolent global conspiracies” of greedy and selfish elites, but that these elites are not necessarily purely evil and instead are *deceptive* (Castanho Silva et al., 2017).

In line with this, the most common conspiracy theory within the populist process skeptic frames revolved around “Climategate”<sup>10</sup> and how “the climate-tracking game has been rigged from the start” (WSJ, 2009). *Fox News* quoted Rep. Sensenbrenner saying “These e-mails show a pattern of suppression, manipulation and secrecy that was inspired by ideology, condescension and profit. They read more like scientific fascism than scientific process” (2009). Building on

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<sup>10</sup> “Climategate” refers to the 2009 release of over 1,000 hacked emails from the Climate Research Unit at the University of East Anglia that climate skeptics claimed demonstrated scientific misconduct and used as evidence that anthropogenic climate change was a scientific fabrication.

that early framework of deceptive science, later frames emphasized the 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” (Letter to the Editor *WSJ*, 2018).

### ***Religion, Control, & Conspiracy: Why should this matter?***

The exploration of these common themes serves as the foundation to resolve some of the challenges met by previous scholars in linking the presence of populist skeptic framing in the “real world” to the effects of such framing on individuals’ climate attitudes in an experimental setting. There is good reason to expect that populist process skepticism, like that described above, would be powerful in reducing support for climate policy action. Outside a populist framework, Smith and Leiserowitz (2012) examined affective image associations to global warming and found that “naysayer” associations (e.g. associations related to climate change being a “scam” or outright conspiracy theories) both increased significantly between 2002 and 2010 and were a significant predictor of global warming risk perceptions. And since the elite is the “main antagonist” in the view of individuals with strong populist attitudes, process skeptic populist framing could be particularly powerful in negatively shifting populists’ view of policies—such as climate mitigation—stemming from actions by these central actors (Huber et al., 2020; Huber, 2020).

As described above, this study has largely focused on both the broader patterns of populist skeptic frames and the particular characteristics of populist process skepticism. From this, I now link these supply side characteristics to the demand side and shift my attention to the

potential *effects* of these frames. Although these process skeptic frames may act as an important part of populist media communication on climate change—particularly on *Fox News*—the consequences of such communication is currently unknown. The rest of this chapter, then, seeks to (1) illustrate the relationships between populism and climate skepticism and (2) identify whether populism and the accompanying process skeptic frames affect individuals’ attitudes towards climate change and climate policies.

### **Survey Experiment: Populist Attitudes, Partisanship and Framing**

As with previous chapters, I largely adopt the ideational approach, treating populism as a set of ideas centered on the antagonistic relationship between the (good) people and the (evil) elite (Mudde, 2004). Thus far, my use of populism has focused on the so-called *supply side* of populist politics, and mainly the role of populist messages in the media (see Chapters 2 & 3 for a longer discussion of these supply side characteristics). Now, I turn to the *demand* side of populism and the *relationships* between populist messages (supply) and individuals’ populist attitudes (demand). As Huber et al. (2020) highlight, understanding the relationships between populist frames and attitudes is particularly important in the U.S. media context as people are increasingly exposed to one-sided messages (Flaxman et al., 2016).

Heavily researched by scholars in recent years, “populist attitudes are attitudinal manifestations of this set of political ideas at the individual level (Huber et al, 2020, 376; see also Akkerman et al., 2014; Castanho Silva et al., 2018; Wuttke et al., 2020). Survey research suggests different facets of populist attitudes are widespread across both Europe and the Americas (Akkerman et al., 2014; Hawkins et al., 2012). And while these beliefs often vary based on demographic factors—like age, gender, and education—scholars argue that “most

citizens agree at least moderately with populist statements about the people, the elite, and the fundamental conflict between them” (Hawkins & Kaltwasser, 2018, 7).

Although loose belief in the core populist ideas is widespread, this does not mean that most people are populists. Wuttke et al. (2020) emphasize that populism is a noncompensatory construct, thus one dimension is not sufficient and cannot be substituted for others as it is the inter-relationship that separates populism from other related concepts. This treatment of populism has its own challenges, and recent work has sought to explore populism’s psychological determinants and distinguish populism more clearly from adjacent factors. Erisen et al. (2021) find that—looking at Turkey and Italy—the relationships between populism and other related psychological factors like moral disengagement, need for cognition, and belief in simple solutions are dependent both on context and the operationalization of populist attitudes.

Even without the challenges of operationalization, populist attitudes can be difficult to measure given that populist ideas are likely not a “true attitude” but instead a “latent demand” that needs to be activated through appropriate communication cues and context (Hawkins & Kaltwasser, 2018). Spruyt et al. (2016) describe how substantial populist demand was generated in Western Europe based on long-term socio-economic and political trends. In that context, populism was made attractive to “people who suffer from being overwhelmed and disoriented by societal changes, who have been placed in a weak and vulnerable economic position because of such changes, who feel their voice does not matter in politics, or who face difficulties in finding a positive social identity” (Spruyt et al., 2016, 2). And in the context of climate change, Lockwood (2018) highlights similar themes of marginalization to understand why right-wing populism poses a challenge to public support for climate change and the climate agenda.

## *Populism & Partisanship*

Given that public opinion is an important determinant of policy action (or inaction) (Anderson et al., 2017), scholars have sought to understand what limits individuals' attitudes towards climate change and mitigation policies, from social-psychological factors like worldviews and risk perception to contextual factors including economics and geography (see Drews & van den Bergh, 2016 for a comprehensive review). In the U.S. context, research highlights the powerful role of partisanship and political ideology in shaping climate attitudes, with dramatic differences between Republicans and Democrats regarding both climate belief and policy support (Dunlap & McCright, 2008; Hornsey et al., 2016). Whether the nature of this division is from ideological and value-driven differences (Leiserowitz, 2006; Lewandowsky & Oberaurer, 2016) or political factors like in-group cuing from party elites and partisan media coverage (Merkley & Stecula, 2020) is still under debate.

More recently, researchers look to populism to understand the polarization around climate change between the two U.S. parties (Oliver & Rahn, 2016; Dunlap et al., 2016). Dunlap et al. (2016, 6) describe how Tea Party groups built on more “generalized rage” and channeled “populist anger into the climate fight” fueling escalating climate polarization within the Republican Party. Although scholars have yet to reach a consensus on whether populist attitudes have an independent effect on climate attitudes, recent research indicates that populism “amplifies the effect of partisanship” such that populist Democrats *support* climate policies more than non-populist Democrats and populist Republicans *oppose* climate policies more than non-populist Republicans (Huber et al., 2020).

I follow this research, arguing that populism is *not* independent of partisanship (Huber et al., 2020). There are significant differences in the current manifestations of populism on the left-

and right-wing, including attitudes towards ethnic minorities (Mudde & Kaltwasser, 2013) and liberal democracy (Huber & Ruth, 2017). In the U.S. context, partisanship is highly influential on many other relationships with climate attitudes. For example, in the relationship between education and climate concern, highly educated Democrats are more concerned about climate change while there is no association with Republicans (Hamilton, 2011). With these distinctions in mind, I expect that:

**H1: Party identification moderates the relationship between populist attitudes and climate attitudes, such that higher populist attitudes will *increase* climate belief and policy support in Democrats and *decrease* belief and support in Republicans.**

### ***Framing Effects***

In addition to studies establishing the diversity of factors underlying climate skepticism, scholars find wide variation in the frames used both in support of and in opposition to climate change (Boussalis & Coan, 2016; Jett & Raymond, 2021). Scholars have explored the effects of a range of frames on individuals' climate attitudes, from moral and religious framing (Severson & Coleman, 2015) to economic stewardship and public health frames (McCright et al., 2016). While a significant portion of the literature focuses on frames to *improve* climate attitudes (i.e. increase belief in climate change, encourage pro-environmental behaviors, and bolster policy support) we might expect similarly differential effects for skeptic frames (McCright et al., 2016).

One of the most discussed skeptic frames, and indeed one of the most common frames in the media sample (see Appendix A), are frames focused on the evidentiary basis of climate change and scientific uncertainty. Van Rensburg (2015) describes this evidence-based skepticism

as the “definitional heart” of skeptic beliefs. In Cann and Raymond’s (2018) study of climate policy opposition frames in Heartland Institute documents (a prominent conservative think tank), science uncertainty frames were present in 44% of articles. Additionally, scholars note that skeptics use experts and evidence-based arguments to both *criticize* mainstream science and *legitimize* alternate explanations for climate trends (Schmid-Petri, 2017). From this work, we would expect that evidence-based skeptic frames may effectively reduce climate change belief and policy support by causing individuals to question the core theses around climate change.

However, there are likely limitations to the framing effects of evidence skeptic frames given the high salience of climate change as an issue and the publicity around the scientific consensus. As Van Rensburg (2015, 4) highlights, it is likely that many skeptics are anchored more to *process* critiques centered on suspicions of climate elites rather than “detailed technical contests around the evidence or how society should respond.” Likewise, Smith and Leiserowitz (2012) found process skeptic critiques in affective imagery cognitive responses related to climate skepticism. From this, I argue that frames including process skepticism will be more effective at reducing climate beliefs than evidence-only claims.

Additionally—linking the potential potency of process skeptic claims to populist frames—the inclusion of conspiratorial language through a populist lens of the “good people” and “evil elites” is likely to further motivate negative attitudes towards climate change and climate action. Lewandowsky et al. (2013, 1), demonstrate that rejection of science can increasingly be understood through the role of *conspiracist ideation*, or the “general tendency to endorse conspiracy theories including the specific beliefs that inconvenient scientific findings constitute a “hoax.” And recent scholarship shows that conspiracy belief is a primary source of



populist attitudes (Erisen et al., 2021). Thus, building on the work of scholars like Van Rensburg (2015) and Smith and Leiserowitz (2012)—I expect that:

**H2a: For Republicans, populist process skeptic framing will have a greater negative effect on climate attitudes than evidence skeptic framing.**

An important caveat to these expectations, I anticipate that the influence of populist skeptic framing on Democrats will be limited. As discussed above, current manifestations of populism are drastically different on the left- and right-wing, with right-wing populism in particular acting as an obstacle to climate action (Lockwood, 2018). Likewise, Huber et al., (2020) find that populist attitudes *increase* support for climate change in Democrats. Given the differences between left- and right-populism, the consistent effect of partisanship on climate attitudes (Dunlap & McCright, 2008; Hornsey et al., 2016), and the high level of climate support among Democrats broadly, I expect that:

**H2b: For Democrats, neither skeptic framing condition will negatively influence climate attitudes.**

In addition to considering the effects of populist skeptic frames on the broader public, research describes populist attitudes as a latent demand that needs to be activated by both an appropriate context and framing cues (Hawkins & Kaltwasser, 2018; Tett & Guterman, 2000). As Hawkins and Kaltwasser (2019, 7) describe, “while a subset of individuals [are] likely to apply their populist attitudes to every circumstance around them, most people require a context that makes the activation of populist attitudes sensible, and interpretive help from other people who can catalyze this process.” From this literature, then, it could be expected that exposure to populist skeptic framing would activate that latent demand, making populist concerns more

relevant to climate change and shifting attitudes towards climate science and policy action. Thus, we could expect that:

**H3: The effects of populist skeptic framing will be moderated by populism, such that exposure to populist frames will have a greater effect on individuals high in populist attitudes.**

### *Populist Framing Effects: A Counterargument*

When considering the impact of populist framing on individuals high in populist attitudes—I have focused on the idea that exposure to a populist frame in this setting will activate the latent demand highlighted in the literature on populist attitudes (see Hawkins & Kaltwasser, 2018). However, there are potentially competing expectations regarding the relationships between populist attitudes, populist skeptic framing, and climate attitudes. Because climate change is already a high salience issue—and given the presence of populist skeptic framing in the media—it could be that individuals are already exposed to these frames and these “latent demands” are already activated. In other words, previous exposure to populist skeptic frames could limit the effect of exposing respondents to an additional populist skeptic frame, particularly on the right-wing.

Likewise, given the potential interactions between partisanship and populist attitudes, it is difficult to assess how these frames may affect left-populists. On one hand, they could be the most likely case for these populist skeptic frames to have an effect. Left-populists are less likely to have been previously exposed to these frames given the differences in media portrayals of climate change (see Chapter 3). This may mean that populist skeptic framing could activate populist attitudes and make them relevant to climate change as an issue, reducing support for

climate change. However, given the consistent power of party on climate attitudes (Dunlap & McCright, 2008; Hornsey et al., 2016) there is good reason to believe these frames will have little effect in shifting left-populist (i.e. Democrats high in populist attitudes) climate attitudes.

### ***Exploratory Analysis: Trust & Conspiracy***

Thus far, I have concentrated on the dynamics between populism and partisanship, and how populist skeptic framing may operate within those relationships. In addition to these core hypotheses—given the significant presence of conspiratorial language in populist skeptic framing—I also explore the related effects of conspiracist ideation on climate attitudes. Although many different conspiracy theories exist, belief in conspiracies is commonly underpinned by a conspiracy mindset or conspiracist ideation, or the generalized predisposition to believe in conspiracy theories (Lewandowsky et al., 2013; Sutton & Douglas, 2020). Put simply, if you believe one conspiracy theory then you are likely to believe more. As Lewandowsky et al. (2013, 3) describe, conspiracist ideation can be powerful in the face of the scientific consensus on issues like climate change as “the belief in a scientific conspiracy can provide an alternative explanation for the consensus.”

The effects of a conspiracist mindset are of particular interest to this study as Erisen et al. (2021) find that conspiracy beliefs are strongly correlated with populist attitudes in both Turkey and Italy, unlike many other potential psychological determinants. Belief in conspiracy theories, as described above, is commonly linked to populist attitudes as “by definition, conspiracies carry a negative connotation of the powerful elite” (Erisen et al, 2021, 6, see also Miller et al., 2016). Sutton and Douglas (2020) also link belief in conspiracy theories to both ideological extremism

and a “populist distrust of mainstream politics.” Thus, I first test to see if the correlation between conspiracist ideation and populism similarly exists in the U.S. context.

Additionally, as conspiracist ideation has proven to be strongly connected to both rejection of science broadly and climate change specifically (see Lewandowsky et al., 2013), we might expect that belief in conspiracies is independent of partisanship, such that stronger conspiracist ideation will decrease climate change attitudes for both Republicans and Democrats.

**H4: Conspiracist ideation will have a negative relationship with climate attitudes for both Republicans and Democrats.**

Yet, while individuals on both sides of the ideological spectrum believe in conspiracy theories, there is also ideological asymmetry. Conservatives’ conspiratorial beliefs tend to be more partisan than liberals,’ and Conservatives are more likely to both favor and reject conspiracies based on which political side is implicated (Sutton & Douglas, 2020). Additionally, given the strong relationship between populism and conspiracy beliefs, it could also be expected that conspiracist ideation will follow a pattern similar to populist attitudes, such that party identification will moderate the relationship between conspiracist ideation and climate attitudes, so higher belief in conspiracies will be positively associated with climate attitudes in Democrats and negatively associated with climate attitudes in Republicans.

***Alt H4: Party identification moderates the relationship between conspiracist ideation and climate attitudes, such that higher conspiracist ideation will increase climate belief and policy support in Democrats and decrease belief and support in Republicans.***

And finally, I will take an exploratory look at the role of information trust in the different skeptic conditions. The role of source credibility has long been examined for its role in

communication and framing effects (Hovland & Weiss, 1951; Grewal et al., 1994; see Pornpitakpan, 2006 for a review). Credibility, in the context of issue framing, often refers to both the expertise of the source and the social group to which the source belongs (Hartman & Weber, 2009) and is directly linked to perceptions of the trustworthiness of the information provider (Metzger & Flanagin, 2013). Source trust has been highlighted as a vital part of communication on climate change across diverse contexts, from Iowa farmers (Arbuckle & Roesch-McNally, 2015) to Pacific Islanders (Scott-Parker et al., 2017). Scholars highlight that trust can act as a heuristic, allowing a decision-maker to select certain information and ignore alternative information to make quicker (and less complex) decisions (Lewicki & Brinsfield, 2011).

Like many framing studies, this experiment is designed to be “faceless” and avoid linking a particular source to the framing conditions (Callaghan & Schnell, 2009). Thus, in the absence of source cueing, I am interested both in how much respondents trust the information provided, and the reasons they give for that trust decision. I expect that participants will decide whether to trust or reject the information provided based on their existing attitudes towards climate change. Moreover, I expect that the decision to trust or distrust the information based on ideological stance (rather than impartial assessment of the information provided) will be more common in the populist condition, as it draws on stronger, more emotional language that is more likely to trigger a similarly emotional response. By contrast, sources *are* provided for the “scientific evidence” some of which should be well known to the respondents (e.g. NASA and NOAA) compared to others (Flinders University and RSS). And as with the unknown source of the article, I expect that many respondents will assess the credibility of these sources based on attitude agreement rather than the prestige of the organization.

## Experimental Design

To test the above-described arguments, I designed a survey-embedded experiment and fielded it via CloudResearch (formerly TurkPrime), a research platform that integrates with MTurk to support participant-sourcing and improve the quality of crowdsourced data (Litman et al., 2017). Respondents were offered \$1.00 to read an article and answer questions about contemporary political challenges. The survey experiment was active on June 28-29<sup>th</sup>, 2021 with a sample size of 600 respondents, reduced to 469 after removing respondents who withdrew their consent and those that failed the attention and manipulation checks.

After consenting to take part in the survey, all respondents received items assessing their populist attitudes and conspiratorial ideation and then they were randomly assigned to one of three conditions: non-populist skeptic frame, populist skeptic frame, or control.<sup>11</sup> Both climate skeptic frames were designed based on the most common frames present in the media sample and all three conditions were constructed to look like an anonymous letter to the editor (and all three were around 250 words). After the treatment, respondents were asked whether they trusted the information in the letter and then about their climate beliefs, trust in various institutions, and support for climate policies.

Several attention checks asking “simple known truths” (Curran & Hauser, 2019) were embedded randomly in scales throughout the survey (Kung et al., 2018). The survey concluded with items capturing basic demographic information. All respondents were then debriefed about both the scientific consensus about climate change and the use of deception in the study, were given the option of withdrawing their consent to have their survey responses used, and provided

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<sup>11</sup> The control condition presented respondents with a letter to the editor about nursing home care.

a code for payment through Amazon. The median completion time for the survey was 15 minutes.

## **Conditions & Measures**

### ***Framing Conditions***

I used both the coding in the previous chapter and the in-depth content analysis to design the two framing conditions, reflecting the format of an anonymous letter to the editor. Rooduijn (2014) describes letters to the editor as the most common place populist messages emerge in newspapers, thus this is a suitable and believable format for presenting populist (and non-populist) frames to respondents in an experimental setting. And, as briefly described above, the climate skeptic conditions were designed to reflect the most common populist and non-populist frames present in the media sample. Although this makes it more difficult to assess what exact factor may contribute to the different effects of the two framing conditions (as they are not controlled) the goal of this study is to understand the potential effects of common patterns of media framing, and whether the inclusion of populist arguments by the media would affect climate attitudes differently compared to the more traditionally studied evidence skepticism of the non-populist framing.

The non-populist experimental frame used evidence-based skeptic arguments as these evidence frames were the most common non-populist skeptic frames found in both the *Wall Street Journal* and *Fox News* (see Appendix B). Most often, these frames focus on the perceived failings of the IPCC report (or other scientific work) and/or weather-based “evidence” that climate change isn’t occurring. From this, the non-populist experimental condition describes “scientific evidence” that climate change is not occurring and cannot be linked with human

activities. Additionally, it describes how “weather phenomena have existed for centuries” and is not indicative of “dangerous climate change.” Additionally, I follow Schmid-Petri’s (2017) findings that climate skeptics use both legitimization and criticism strategies in their communication of climate change and provide both condemnations of climate change evidence (criticism), and counterevidence that climate change is not occurring (legitimation).

For the populist skeptic condition, I followed the themes identified above and added process skeptic language including descriptions of climate scientists as “guided by elitist goals and a desire for control over the public.” Drawing both from observations in the media sample, and Van Rensburg’s (2015) taxonomy, I focused on using these process frames as justifications against scientific evidence from scientific sources. Additionally, I included conspiratorial language and descriptions of “zealous preachers of climate alarmism.” I also ensured that the condition contained both people-centric and anti-elite messaging, highlighting elite machinations against the public.

Finally, for the control condition I used a mock letter to the editor describing potential problems with nursing home care. This control was designed to be a believable letter to the editor about an issue distant from climate change, and purposefully does not reference elites or politics more generally (see Table 4.1 for sample text and Appendix C for full text).



Table 4.1: Experimental Conditions		
	Sample Text	Group Size
Non-Populist (Evidence Skepticism)	<p>“Scientific evidence does not conclusively link climate change to human action. The climate is changing -- it always is.”</p> <p>“As the Nongovernmental International Panel on Climate Change (NIPCC) argues: “The human effect is likely to be small relative to natural variability.””</p>	N=123
Populist (Process Skepticism)	<p>“Climate alarmism is now a religion with gods, sinners and indulgences, that seeks to crush those who dare to speak out.”</p> <p>“In sum, climate change science is driven by self-interested elite motivations not strong scientific evidence.”</p>	N=173
Control	<p>“While many long-term care providers do their best to care for our most vulnerable citizens, I have witnessed firsthand the less-than-optimal conditions in some nursing homes and long-term care facilities.”</p>	N=173
Total		N=469

### *Climate Attitudes*

For the variables related to climate attitudes, I used two different measures. First, to assess individuals’ belief in climate change, I used the index of belief in climate change from Hennes et al. (2016). Respondents answered 7 questions on a 7-point scale. The first three questions asked if they believe in (1) anthropogenic climate change, (2) if climate change is occurring, and (3) if climate change is a hoax (reverse coded). The last four asked how likely it is that (1) the effects of climate change would be noticeable in their lifetime, (2) climate change is occurring, (3) that scientists will find out climate change is not happening (reverse coded), and

(4) that climate change is a hoax. Scores on all 7 items were averaged into a single index of belief in climate change ( $\alpha = .96$ ).

Moving to policy support, I used 4 items originally developed by the Yale Program on Climate Change Communication (Howe et al., 2015) and used in multiple studies (Severson & Coleman, 2015). Respondents indicated their level of support for each of 4 policies (renewable energy research, carbon dioxide regulation, carbon dioxide limits for powerplants, and renewable requirements for utilities) on a 4-point scale ranging from strongly oppose to strongly support. Scores were averaged into a single index of self-reported policy support ( $\alpha = .93$ ).

### ***Populist Attitudes***

To assess individuals' populist attitudes, I used the Populist Attitudes Scale designed by Castanho Silva et al. (2018). This scale is a short 9-item battery of questions aimed at capturing the wide range of populist attitudes in the public and has been broadly tested in both the U.S. and around the world. Respondents indicated their level of agreement or disagreement with each of the statements on a 7-point scale ranging from Strongly Disagree to Strongly Agree. This scale is designed to differentiate populism from related measures by identifying three sub-dimensions of populism: people centrism (3 items including "Politicians should always listen closely to the problems of the people"), anti-elitism (3 items including "The government is pretty much run by a few big interests looking out for themselves"), and Manichaeian outlook (3 items including "You can tell if a person is good or bad if you know their politics").

To extract the different dimensions, I followed Castanho Silva et al.'s (2020) directions calculate the factor scores of each dimension and then calculate a combined "populist" score by multiplying the three scores. This follows the noncompensatory nature of populism and as Erisen

et al. (2021) describe, “conceptually, this means that if a person scores low on any of the subdimensions of populism, they will get a low score even if they are high on the other two.” As described in Chapter 2, this multidimensional nature—and the relationship between these different sub-dimensions—is one of the primary factors that distinguishes populism from related (and often highly correlated) concepts like trust in government, conspiracy ideation, and anti-establishment attitudes (Wuttke et al., 2020).

### ***Conspiracy and Trust***

To assess individuals’ belief in conspiracies, I used the conspiracist ideation scale from Lewandowsky et al. (2013). Respondents indicated their level of agreement or disagreement with each of 6 statements on a 5-point scale ranging from Strongly Disagree to Strongly Agree. Sample items included “A powerful and secretive group known as the New World Order are planning to eventually rule the world through an autonomous world government which would replace sovereign governments.” and “The Apollo moon landings never happened and were staged in a Hollywood film studio.” Following Lewandowsky et al.’s (2013) instructions, a single dimension was extracted using principal component analysis. Respondents were also asked about three prominent science-based conspiracy theories regarding climate change, AIDS, and tobacco smoke (Lewandowsky et al., 2013).

To assess individuals’ trust, I used an index of trust from Wang & Kim (2018). Respondents were asked how much they trust each of eight organizations in addressing climate change and energy issues on a 5-point scale ranging from “Do not trust at all” to “Trust completely.” Scores on all 8 items were averaged into a single index of trust ( $\alpha = .83$ ). Finally, to assess trust towards the information given in the experimental conditions, respondents were

asked whether the information provided in the letter was trustworthy (7-point scale ranging from definitely not to definitely). They were then provided space to answer “why or why not” in an open-ended format.

## **Method**

I used OLS regression for the empirical models. First, I replicated a similar model to Huber et al. (2020) testing the relationships between climate attitudes, partisanship, and populist attitudes by regressing the climate variables on populist attitudes, party identification, and their interaction. Then, to assess the different framing conditions, I also test for the contrasts of interest using post-estimation Wald tests. To explore the role of trust and conspiracy, I look at the correlations between populism, populist sub-dimensions, trust, and conspiracist ideation (partially replicating Erisen et al.’s [2021] study) and then test whether conspiracist ideation acts independently from partisanship on climate attitudes. And finally, I look at the differences in information trust between the different treatment groups and assess the open-ended responses to identify reasons for both trust and distrust. Based on the exploratory nature of this analysis, all tests are two-tailed with significance assessed at the  $p < .05$  level and marginal significance at  $p < .1$  unless otherwise noted (see Appendix D for regression tables).

I tested for overall balance across conditions based on demographic factors using multinomial logistic regression and found no evidence of overall imbalance. Although control variables are unnecessary due to random assignment, the inclusion of control variables that independently predict the outcome can reduce heterogeneity in estimates (see Mutz, 2011). Thus, I first estimated models with all sociodemographic characteristics and determined which independently predicted climate change belief and policy support (see Appendix D for full descriptive statistics). Based on these results, I included age and religiosity in all models. Results

are substantively identical regardless of inclusion of control variables. Compared to national averages, as with many MTurk studies, my sample was considerably more educated, less likely to be religiously affiliated, and slightly more likely to be female (see Table 4.2).

Table 4.2: Comparison of MTurk Sample to U.S. Census<sup>a</sup>/GSS Information<sup>b</sup>

	Census/GSS	MTurk
Male	49% <sup>a</sup>	41%
College Degree or Higher	32% <sup>a</sup>	75%
Republican (including Lean)	35% <sup>b</sup>	36%
Under \$25,000 income	17% <sup>a</sup>	16%
Atheist/Agnostic/No religion	21% <sup>b</sup>	38%
Age (mean)	38 <sup>a</sup>	44

Additionally, it is important to note for later analyses that—while relatively similar in distribution between parties—populist attitudes are positively skewed with the majority of respondents scoring low in the overall measure (see Figure 4.1). This is expected based on the strictness of the populist attitude scale formation and the treatment of different populist dimensions as noncompensatory, and is in line with previous analyses using this scale (see Erisen et al., 2021).

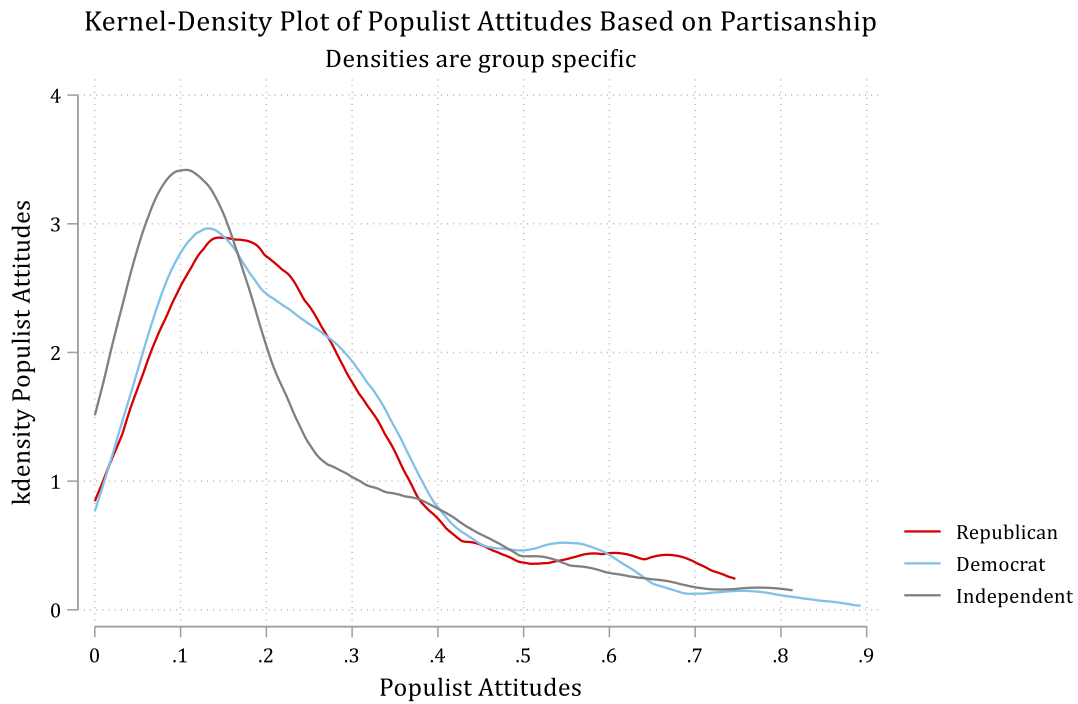


Figure 4.1: Density Plot of Populist Attitudes by Party

## Experimental Results

### *Partisanship and Populism*

I began by analyzing the relationships between partisanship, populist attitudes, and climate attitudes. Hypotheses 1 predicts that—based on the findings by Huber et al. (2020)—party identification will moderate the relationship between populist attitudes and climate attitudes, so higher populist attitudes will be positively associated with climate attitudes in Democrats and negatively associated with climate attitudes in Republicans. I find partial support for this hypothesis. As Figure 4.2 illustrates, partisanship has a significant effect on climate attitudes such that Democrats are more likely to believe in anthropogenic climate change and support climate policies. Additionally, for Republicans there is a significant interaction between partisanship and populism. Republicans higher in populist attitudes tend to be both lower in

belief in climate change and support for climate policies. No such interaction exists for Democrat respondents, and Democrat climate attitudes did not vary significantly based on level of populist attitude. Overall, my findings support Hypothesis 1 for Republicans but not for Democrats.

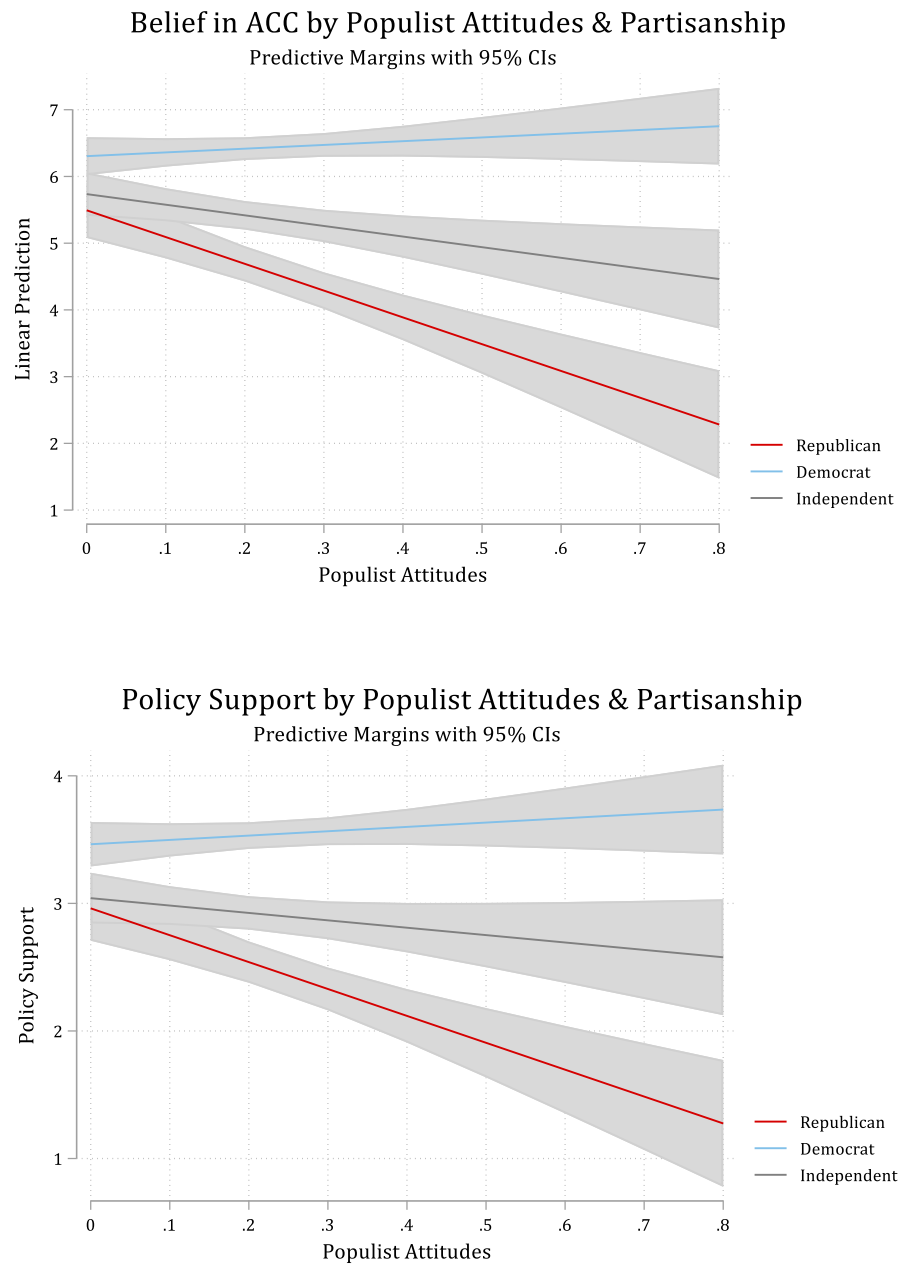


Figure 4.2: Climate Attitudes by Partisanship and Populist Attitudes

### ***Populist Framing Condition***

Hypothesis 2a predicts that—in Republicans—the populist process skeptic frame will have a greater negative effect on climate attitudes than the non-populist evidence skeptic frame. I find limited support for Hypotheses 2a. Looking first at belief in climate change, on average, Republicans in the populist framing condition did report lower belief in climate change and there is a marginally significant difference between the populist and non-populist skeptic conditions, partially supporting Hypotheses 2a (Figure 4.3). Substantively, this is a difference between means of about 1 point on the 7-point scale. This is, however, due in part to the non-populist skeptic condition unexpectedly increasing belief in climate change compared to the control condition (though this difference is not significant). Thus, while the populist condition significantly reduced climate belief compared to the non-populist condition, it is not significantly different from the control condition. Additionally, there is no significant difference between any of the conditions regarding support for policy action in the Republican sub-sample (Figure 4.4; also see Appendix D for regression tables).

Turning to the Democratic respondents—and Hypotheses 2b—I expected that there would be no change in climate attitudes based on treatment condition. Looking at Figure 4.3, there is no significant difference between any of the three conditions on climate change belief, though the populist condition did marginally reduce belief in climate change compared to the control condition. By contrast, providing limited evidence contrary to Hypothesis 2b, both framing conditions did marginally reduce support for climate policy action in the Democratic respondents compared to the control condition. There is no significant difference between the two framing conditions in the Democratic respondents. However, even taking into account the marginal differences between some of the conditions for Democrats, these differences are



unlikely to be substantively interesting given the small size of the effects and the extremely high average response on both scales by Democrats (averaging over 6 on a 7-point scale for ACC belief and over 3 on a 4-point scale for policy support).

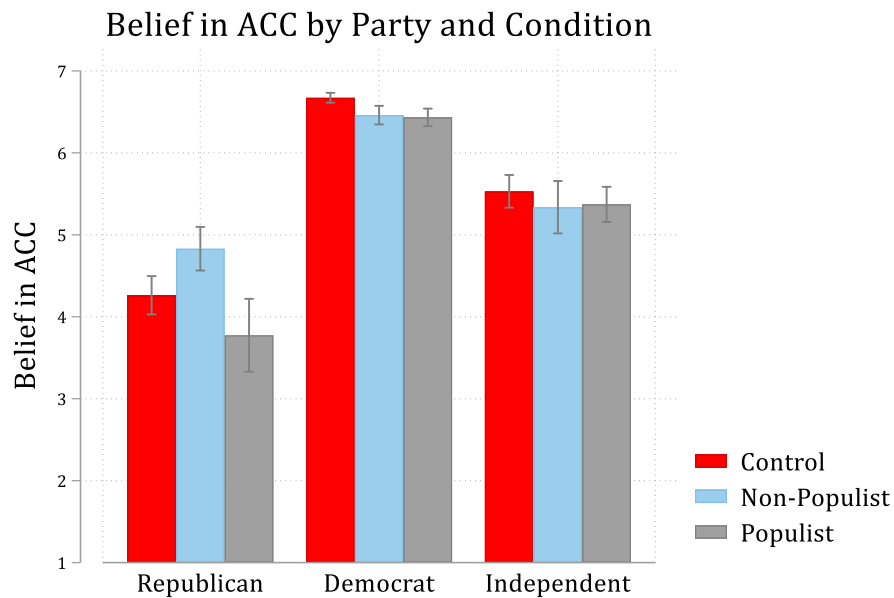


Figure 4.3: Belief in Climate Change by Partisanship and Treatment

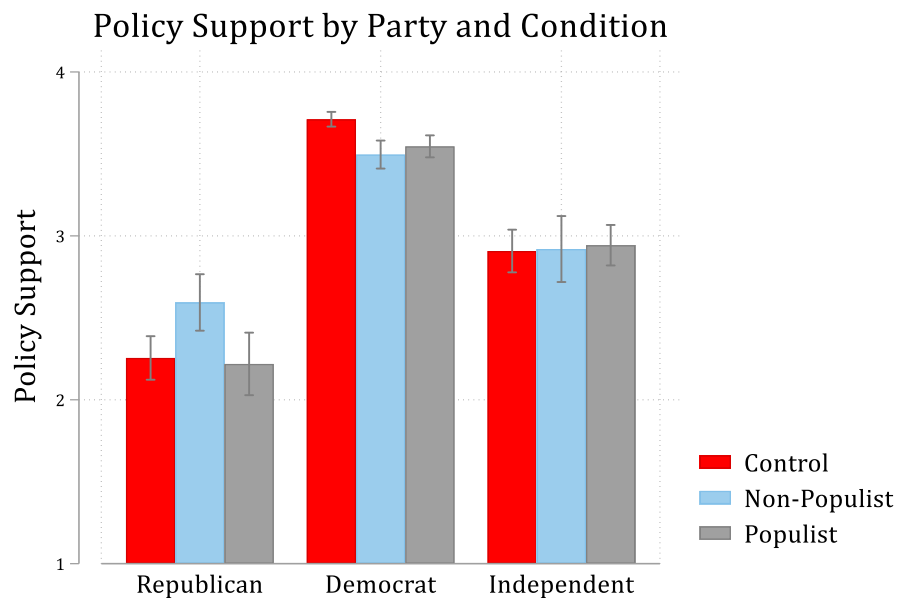


Figure 4.4: Policy Support by Partisanship and Treatment

My final main hypotheses (H3) predicts that populist skeptic framing will have a greater effect on individuals with higher populist attitudes. Contrary to my hypotheses, I find that the populist skeptic condition does not have a greater effect on respondents high in populist attitudes compared to the non-populist skeptic condition (Figure 4.5).

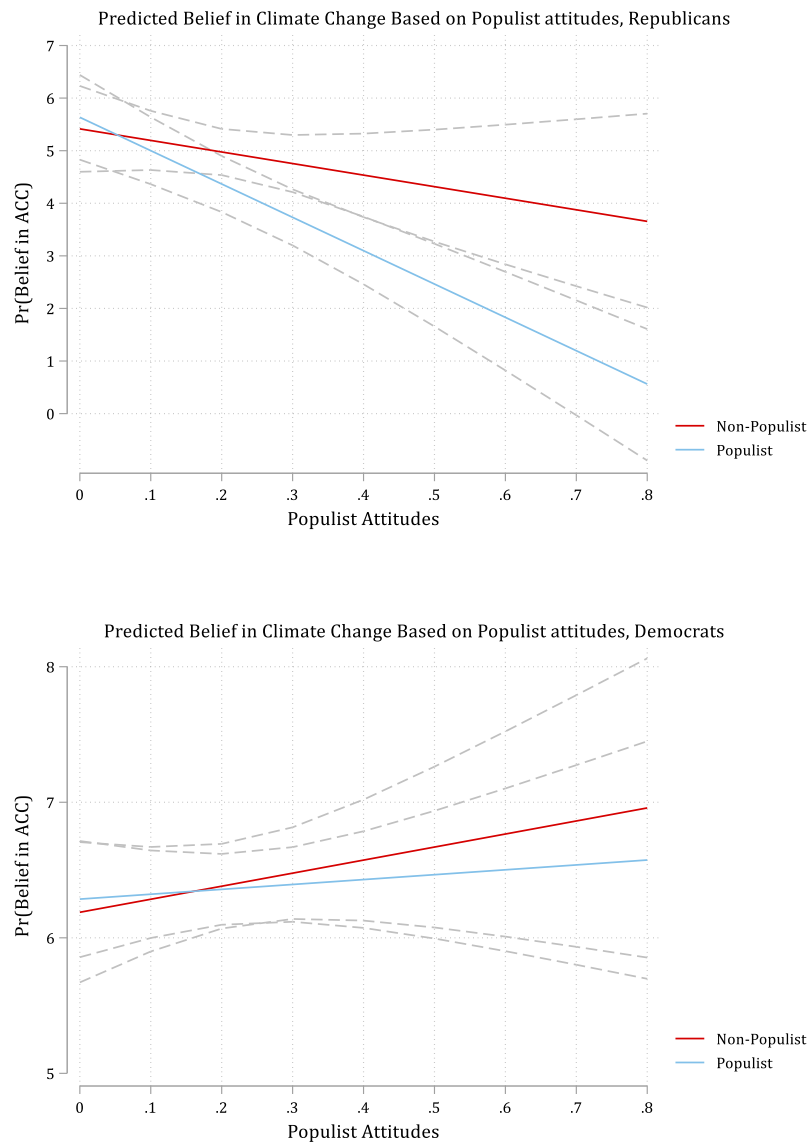


Figure 4.5: Climate Attitudes based on Populist Attitudes and Treatment Condition (by Partisanship)

## Trust & Conspiracy

Turning to an exploration of the role of trust in institutions, source trust, and conspiracist ideation, first, I replicate the results of Erisen et al. (2021). Looking at the bivariate correlation between the measure of populist attitudes and the measure for conspiracist ideation, I find that conspiracist ideation is significantly correlated with populist attitudes (Table 4.3). Looking at the populist subdimensions, contrary to Erisen et al.'s (2021) findings, conspiracist ideation is correlated with anti-elitism but not significant correlated with people-centrism. Likewise, I find that trust in various institutions to address climate change is negatively correlated with populist attitudes, anti-elitism, Manichean outlook, and conspiracist ideation.

Table 4.3: Intercorrelations of Populist Dimensions, Trust, & Conspiracist Ideation

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Populist Attitude	0.23	0.17	—				
2. Anti-Elitism	0	1	0.57***	—			
3. Manichean Outlook	0	1	0.80***	0.20***	—		
4. People-Centrism	0	1	0.34***	0.13***	-0.02	—	
5. Conspiracist Ideation	0	1	0.29***	0.45***	0.11*	0.03	—
6. Trust	-0.10	0.76	-0.33***	-0.56***	-0.14**	0.05	-0.43***

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

From this, I test the relationships between conspiracist ideation, partisanship, and climate attitudes. I posed two competing hypotheses for this relationship, the first (H4) being that conspiracist ideation independently influences climate attitudes and has a negative effect on climate attitudes for both Democrats and Republican. Alternatively, the second hypotheses (alt H4) suggests that—similarly to the populist attitude findings of Huber et al. (2020)—party identification will moderate the relationship between conspiracist ideation and climate attitudes, so higher belief in conspiracies will be positively associated with climate attitudes in Democrats and negatively associated with climate attitudes in Republicans. I find support for the first

hypotheses. As Figure 4.6 illustrates, there is a significant negative effect of conspiracist ideation in both Republicans and Democrats such that in both parties higher belief in conspiracies is associated with lower belief in climate change and support for policy action. Overall, this finding supports Hypothesis H4 rather than the alternative hypotheses of different effects based on partisanship.

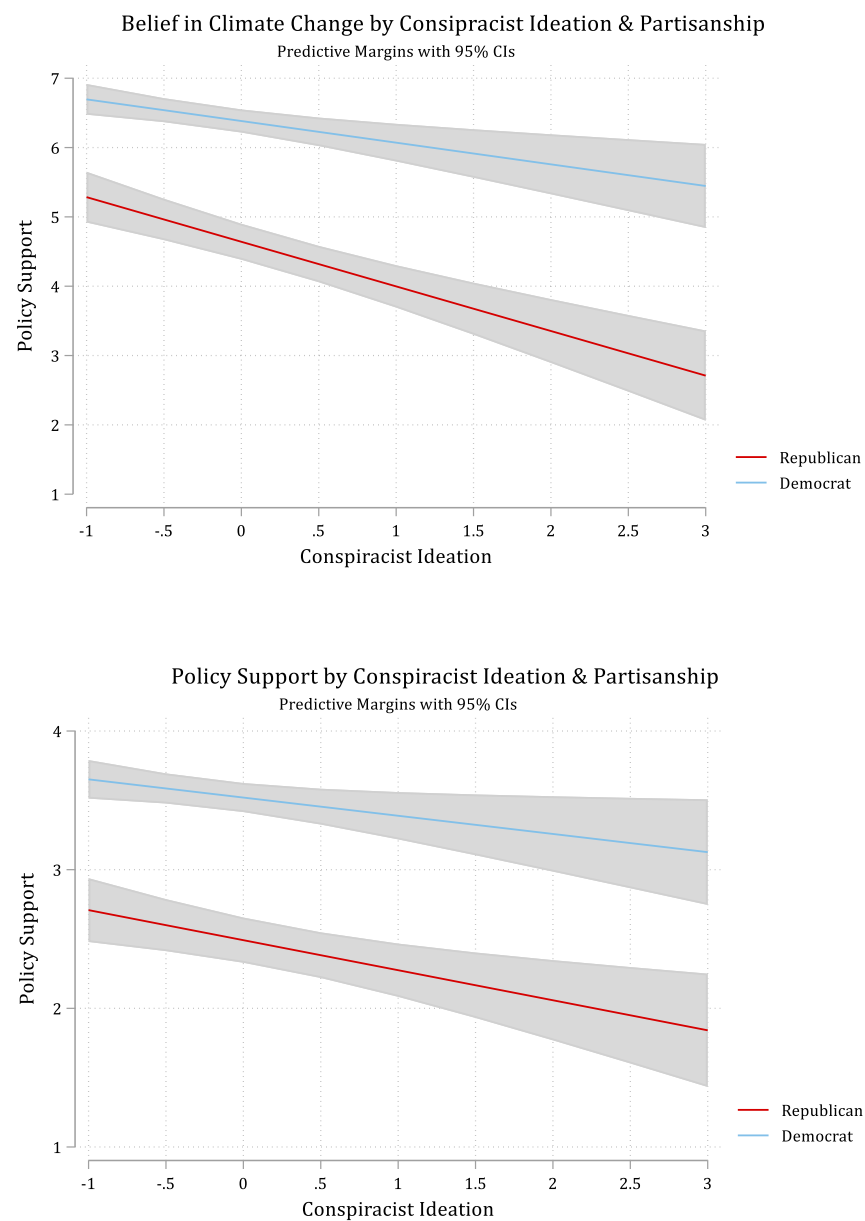


Figure 4.6: Climate Attitudes by Partisanship and Conspiracist Ideation

And finally, I look at the role of information trust in this experiment. Looking at the three conditions, I find that respondents trusted the information provided in both experimental conditions less than the control condition (see Figure 4.7). Additionally, both independents and Democrats trusted the populist condition less than the non-populist condition.

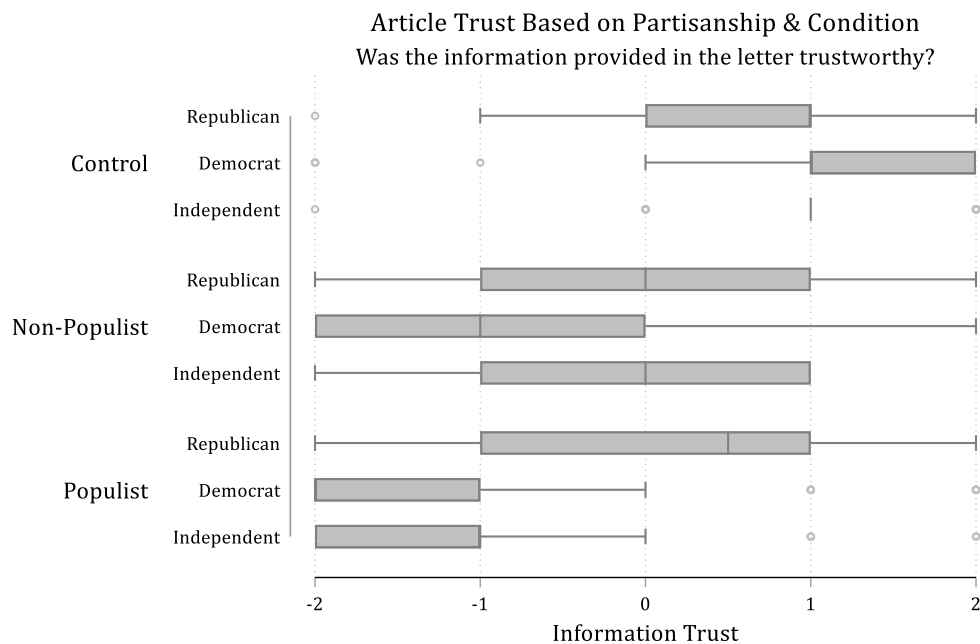


Figure 4.7: Information Trust by Treatment Condition and Partisanship

To understand the identified differences in information trust, I turned to the open-ended prompt asking respondents to explain why they found the information to be (un)trustworthy. In both skeptic framing conditions; respondents primarily gave reasons for *not* trusting the articles by stating alternative evidence supporting climate change or refuting the evidence claims in the article. The type of evidence used varied widely between respondents. Some broadly stated their agreement with the scientific consensus, for example: “I believe that the evidence of climate

change is overwhelming, and no other person's opinions will change my mind that humans are the driving force behind climate change.” Others cited more personal experiences with climate change as the reason they did not trust the information provided: “I’ve lived in California's great central valley for almost 70 years. I know climate change is real because I experience it every season of the year.” Additionally, several respondents expressed distrust by questioning the reliability of the sources of the “facts” in the article: “I'd never heard of most of the climate organizations he was quoting results from.” and “What even is Flinders University? And I wouldn't trust one company to overrule all of science about temperature increases.”

One difference between the two skeptic conditions in the reasons respondents gave for *not* trusting the articles is the focus given to the characteristics of the article itself. In each condition, the article given was prominently marked as an anonymous letter to the editor. In the non-populist skeptic condition, less than 7% of respondents mentioned that the article was an opinion piece or anonymous, while over 20% of those in the populist condition gave these factors as reasons for distrusting the article’s information. For example, “It is anonymous; anyone could have written it.” and “Some rando writing a ‘letter to the editor’” were both responses in the populist condition. Additionally, respondents in the populist condition were more likely to reference the overall tone of the article as a reason for distrusting the information provided, referencing “emotions and anecdotes” and “scare language.” Likewise, respondents were also more likely to respond emotionally or disparage the “writer” of the article in the populist condition: “The moron doesn't provide evidence to counter the thousands of studies to the contrary.”

Turning to those who responded stating they trusted the information provided, most respondents praised the quality of the information the sources provided. For example, “This is

somewhat trustworthy because of the trustworthiness of the organizations performing the testing and research.” Several participants also directly stated that they trusted the information because it conforms with prior beliefs: “I like the conclusion, so I'm biased to want the information to be trustworthy.” While a couple of respondents in the non-populist condition reference the “propagandist position that climate change is occurring” this is much more common in the populist skeptic condition. Several respondents in the populist condition described climate change as a “hoax” and called the issue “more political than scientific.” For example, one respondent stated they trust the information given because “climate change is a fraud a gigantic hoax to keep empowering politicians and putting money in scientists pockets.” And another described climate science as “a hoax that I can explain to a ten year old with a cell phone.”

## **Discussion**

Looking at the qualitative text analysis, I found that populist process skeptic frames follow several key trends. Describing climate change as a “new religion” of the left, these frames claim that the media, politicians, and climate scientists are sensationalizing and fabricating the dangers of climate change to scare the public. These religion frames also describe climate advocates as “zealots” that seek to suppress opposition at any cost to maintain their power. Additionally, populist process skeptic claims often portray climate change as a means of control, whether it is control of public behaviors by the climate elite, or larger international schemes to take control of the U.S. economy. In both cases, I find that conspiracy is a common rhetorical tool used in these process skeptic frames, though who is involved in the conspiracy varies between different elite groups and typically focuses on climate scientists and politicians.

Moving to the relationships between populism, partisanship, and climate attitudes, my results support Huber et al.'s (2020) finding that populism acts as an amplifier of partisan attitudes towards climate change, at least for Republicans. I find that Republicans with stronger populist attitudes were less likely to believe in climate change and support climate policies compared to their non-populist counterparts. Contrary to Huber et al. (2020), I did not find the reverse pattern in Democrats and populist attitudes had no significant influence on Democrats' climate attitudes. It is difficult to assess why these different patterns occurred. It could be simply due to a ceiling effect, given that even Democrats very low in populism tended to respond above a 6 on the 7-point scale. Additionally, there are political differences between the two data collection dates, with Huber et al.'s data being collected in 2018, while Trump was still in office. Trump's control of the White House could have provided an external threat motivating Democrats' populist—particularly anti-elite—attitudes differently than in my data collected in 2021 during the Biden administration. Likewise, my data was collected during a record heatwave, which could have solidified both populist and non-populist support for climate change creating a ceiling effect for climate attitudes among Democrats.

Considering framing, I did not find significant evidence that populist skeptic framing would negatively influence climate attitudes, and this result did not differ meaningfully between Democrats and Republicans. There was a marginal difference between the non-populist and populist framing conditions in Republicans, and it was in the direction of my hypotheses that populist skeptic framing would reduce climate belief more than the non-populist frame. However, this effect was marginal and partially due to the non-populist framing condition unexpectedly improving climate belief compared to the control condition (n.s.).



Likewise, I did not find that the populist framing condition influenced attitudes more for populist versus non-populist respondents. This supports the counterargument posed in the hypotheses section that the “latent demand” for populist ideas may already be activated in the context of climate change. The notable presence of populist skeptic frames in the more conservative news outlets (*Fox News* and the *Wall Street Journal*) suggests that Republicans may already be exposed to these populist frames and thus climate change is *already* connected to populist ideas.

As the counterargument describes, in this case, I would expect exposure to additional populist frames to have limited influence on climate attitudes as populist attitudes have already been made salient in climate change issue considerations. More work is needed to determine if this is the case, as it could also be that climate change attitudes are already deeply entrenched, regardless of populism. Additionally, it is possible that the lack of effects is due the belief in ACC and policy support scales not being the right dependent variables for assessing how populist (or non-populist) framing is shaping broader attitudes towards climate change and related policies.

Another potential explanation for the lack of effect among populists could be that these populist skeptic frames are only effective on “true populists” or those that score exceptionally high on all three populist subdimensions. As I show in Figure 4.1, populist attitudes in my sample were positively skewed, with few respondents on the high end of populist attitudes. Many studies emphasize the role of values and world views in determining climate attitudes (Corner et al., 2015) and find that frames are most effective when they are tailored to the values of the recipients or their in-group (Corner et al., 2014; Fielding et al., 2020; Nisbet & Mooney, 2007).

It could be that, given the potential lack of “die-hard populists” in my sample, the populist framing did not connect to a true set of in-group values.

With these political factors, another important component to explaining these results is design of the framing experiment itself. This experiment was designed to mimic “real world” framing, this means there are limitations to isolating the effects (or lack of effect) of the different features of the frames presented. Van Rensburg (2015) suggests that process skeptic frames might shift opinion by reaching individuals who are not otherwise skeptic of the existence of climate change. Modeling the observed populist process skeptic frames, the populist process skeptic experimental condition contained more extreme expressions of skepticism and emotionally laden language. Process skeptic frames with less radical language might be more persuasive, thus a differently worded populist process skeptic frame might have a different, or bigger effect. Additionally, this design presented a letter to the editor from an anonymous member of the public. While this was an intentional design given the anti-elitist component to populism, it also comes at the cost of source credibility and cueing (Callaghan & Schnell, 2009). Looking at the short-answer responses to the question: “was this information trustworthy?” I found that many respondents called attention to both the opinion-based format and the anonymity of the writer, particularly in the populist skeptic framing condition.

Future work might benefit from examining different source cues, given the effects of in-group cueing in previous framing studies. And source cues might be particularly important to populists, both based on their Manichean Outlook that designates “friends” and “foes” (Mudde, 2004) and because people are drawn to populist ideas partially due to a desire for group distinction and a positive social identity (Spruyt et al., 2016). Thus, information from “friends”

within that in-group might have a much stronger effect on populists compared to out-group communication.

Finally, I found that—in line with Erisen et al. (2021)—populist attitudes were positively correlated with conspiracist ideation and negatively correlated with trust in institutions. Additionally, I found that higher levels of conspiracist ideation significantly decreased climate support in both Republicans and Democrats. This suggests that, while conspiracist ideation and populist attitudes are related, they relate differently with partisanship and climate attitudes in the U.S. context. From this, more research is needed to untangle the different psychological factors connected to populism as well as the mechanisms that link populism to climate attitudes.

Erisen et al. (2021) raise concerns that the sub-dimensions of populism are not well suited for co-existing as part of one singular scale. Specifically, Erisen et al. (2021) highlight that the sub-facets of populism do not necessarily co-occur and, in fact, are sometimes negatively correlated with one another, leading to challenges in identifying both its psychological determinants and its effects. Although scholars have made significant progress in recent years in measuring populist attitudes, more work is needed both in identifying the building blocks of populism and how they can best be combined to understand populist attitudes as a singular construct (Erisen et al., 2021).

## **Conclusions**

So, do populist skeptic messages influence attitudes towards climate change? Early evidence suggests that—at least in experimental conditions—the presentation of a populist skeptic message does not noticeably shift respondents' climate attitudes. Likewise, in this study, exposure to a more traditional evidence skeptic frame did not significantly shift opinions on climate change. Although this study did not find a significant relationship between populist

skeptic framing and climate attitudes, populist attitudes do seem to play an important role in climate attitudes beyond partisanship, at least for Republicans. In other words, while I do find that baseline populist attitudes are associated with greater skepticism about climate change from Republicans, it is not yet clear whether momentary exposure to populist messages has a direct effect.

Like Huber et al. (2020), I want to emphasize that this is reassuring news for climate policy. Yet, I also want to express caution in overinterpreting these results as populist framing having no effect on climate change attitudes. Although this study does not suggest that populist frames are *moving* opinions on climate change broadly, it could be that populist skeptic frames instead balkanize attitudes on climate change further dividing skeptics and non-skeptics and limiting future successful communication on climate change. Likewise, this study tests the effects of populist framing on general climate change attitudes, and there might be different effects if the frames were more strongly contextualized—like a particular climate action or scientific study—as many of the “real world” frames tend to target particular actions (like the IPCC report, COP21, or “Climategate”).

Likewise, based on the relationship between populist attitudes and climate skepticism in Republicans, it is still vital that we understand how climate change became linked to the broader set of populist ideas. Given what we know about how populist ideas become activated through communication, future research should investigate different potential mechanisms that could potentially explain this activation. For example, given the high trust in scientists across the sample (see Appendix D), there might be differences if the conspiracy described in the frame focused on government and political elite malfeasance rather than largely concentrating on scientists. Also, future work should examine the role of populist skeptic framing in different

country contexts, particularly with the rise of both populist parties and populist movements in Europe.

And finally, more scholarship is needed examining the relationships between populist attitudes and related concepts like anti-elitism, anti-intellectualism, and conspiracist ideation and how they might influence climate change attitudes. My findings regarding the different effects of conspiracist ideation and populist attitudes between partisans suggests that, like recent work by Erisen et al. (2021), more work is needed to differentiate the particular effects of populism from related concepts and to clarify the relationships between populism's different sub-dimensions.

## CHAPTER 5. CONCLUSIONS AND FUTURE DIRECTIONS

Some have spoken of the ‘American Century.’ I say that the century on which we are entering... can be and must be the century of the Common Man.

Henry Wallace, May 8<sup>th</sup>, 1942

Populist communication is not new. Yet the rise of populist movements and political parties around the world is cause for concern, particularly the right-wing variant. In addition to the threat posed to liberal democratic values, these groups often oppose the policy action necessary to address some of the world’s leading problems, including climate change. And the obstacle posed by rising populist movements against climate change comes at a time when scientists are issuing their most dire warnings about the unequivocal influence of humans in causing rapid and widespread changes to the atmosphere, ocean, and land. As the 2021 IPCC report describes, “Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO<sub>2</sub> and other greenhouse gas emissions occur in the coming decades” (IPCC, 2021, 17).

This urgent call for rapid and ambitious government action comes at a time when populist skeptic framing is undermining both the credibility of the scientific process and painting government action on climate change as a collusion of self-interested, power-hungry elites. Although we are increasingly aware of the significant obstacle that right-wing populism may pose for climate change mitigation, we have yet to put the pieces together to understand *how* populist attitudes have become linked to climate skepticism. In particular, while significant scholarly effort has been put into understanding the growth of populist attitudes and the way those attitudes shape policy support, less work has examined the role of populist skeptic *frames* in this relationship.

In this dissertation, my goal has been to contribute to the developing literature seeking to understand the connections between populism and climate skepticism and the interrelations between populist ideas and attitudes. To this end, I first synthesized the literature around climate change, populism, and the media to build a framework for understanding how the media may play a role in perpetuating populist skeptic frames around climate change. Then, I examined (1) how populist skeptic frames have emerged in U.S. media communication on climate change and (2) the degree to which populist frames are influential in shaping individual attitudes towards climate change and related policies. In doing so, this study supports efforts to disentangle the relationships between the far-right and diverse forms of climate skepticism (Forchtner, 2019). It also builds on research studying the diversity of climate skeptic frames (Cann & Raymond, 2018; Boussalis & Coan, 2016), and the nature of populist frames in the media (Rooduijn, 2014; Hameleers et al., 2019).

### **Overall Results of Studies**

Completing a content analysis of opinion pieces in mainstream newspapers and *Fox News* programming between 2008 and 2020, I found that populist skeptic frames have become an important part of media communication on climate change, particularly in right-wing news sources. Populist skeptic frames in the media also used a higher proportion of *process* skeptic frames that critique the scientific and political processes underlying climate science and policy development rather than more direct criticism of the evidence of climate change or particular climate mitigation responses.

Moving to an analysis of the different themes within this prominent populist process skeptic framing, I built on the preliminary evidence that populist frames may intensify skepticism from an uncertain logic to complete rejection, highlighting the common use of

conspiracy theories and conspiratorial language describing elite groups—made up of scientists and politicians—that are colluding to deceive the people and advance the climate agenda at all costs. Additionally, I identified two major themes in populist process skeptic frames: first, that climate change is a new religion that seeks to destroy opposition in pursuit of power and second, that climate action is a means of controlling the public.

I used these insights to develop an experimental design testing the effects of these populist skeptic frames on individuals' attitudes towards climate change. I found that populist attitudes do influence climate beliefs and policy support beyond partisanship, at least for Republicans, such that populist Republicans are less likely to believe in climate change or support policy action compared to non-populist Republicans. By contrast, I did not find that populist attitudes influence Democratic attitudes towards climate change. Additionally, while a populist process skeptic frame had a marginally stronger effect of reducing climate belief in Republicans compared to a non-populist evidence skeptic frame, the effect was not significantly different from the control condition. Likewise, populist framing did not have a differential effect on individuals with stronger populist attitudes compared to non-populists.

### **Conclusions: Populist Framing and Climate Skepticism**

So, what does this mean for the relationship between populism and climate skepticism? This study offers substantial evidence that populist framing of climate change is highly visible in right-wing media environments. Moreover, this study finds evidence that the skepticism present in and around populist frames is markedly different than that found with non-populist frames. Populist frames are more commonly present in articles that completely reject climate change (rather than those that are uncertain) but more importantly, process skeptic frames are much more common in populist framing compared to non-populist frames.



Process skeptic frames expand the center of skepticism beyond the evidentiary basis of climate science in ways that may impact both *who* is skeptical and *what* pro-climate communication is needed to successfully communicate the necessity of ambitious climate action. Momentary exposure to a populist process skeptic message did not have a direct effect on climate attitudes in this experiment. Yet, the common use of these process frames and their divergence from traditionally envisioned skepticism suggests that understanding the nature and effects of these frames is critical for evaluating the role of populist communication in the climate change issue space.

Given that the media is likely a vital actor in disseminating populist ideas to a wider public (Mazzolini, 2008), the presence of populist skeptic frames across both right-leaning news sources speaks to the need for greater awareness of populist framing patterns outside the specific communication from notable actors like Donald Trump. Substantial scholarship highlights the role of communication in activating latent populist demands (Hawkins & Kaltwasser, 2018), thus future work is needed to understand whether the lack of framing effect was due to the existing activation of these attitudes via previous exposure to populist framing. The growing presence of conspiratorial framing of climate change dating back to the early 2000's suggests that this might be the case (see Smith and Leiserowitz, 2012), but the lack of effect could also be due to a failure of congruence between the framing and the receiving public (Bonikowski & Gidron, 2016).

### **Future Research: Patterns of Populist Skeptic Framing**

These considerations lead to many different fruitful directions for future research. I will first consider how future work should build on the content analysis completed in Chapter 3. The content analysis in Chapter 3 focuses on the ideational approach and the different dimensions of

populism (people-centered and anti-elite) as the key identifiers of populist messages. Future studies could also look at the spread of different stylistic indicators of populism including personalized communication (Taggart, 2002) and emotionalized appeals (Fieschi & Heywood, 2006).

Additionally, this study focuses on right-wing populist communication and climate skepticism, future studies should consider the presence of populist frames in left-wing communication and whether populist messages are present in framing supporting climate action. With the rise of movements like Extinction Rebellion globally, there is evidence that both sides of the climate issue are adopting more populist approaches to communication and organization.

Alongside this, future work should broaden the scope of the media environments—both by partisan leaning and type of outlet—to explore both consistencies within the spread of populist ideas and how different communication spaces differ. For example, is MSNBC comparatively populist or is this currently a trend only in right-wing communication in the U.S.? Additionally, how do the more mainstream sources examined in this study differ from either more fringe publications, like InfoWars or *Breitbart*, or social media spaces like Facebook or Twitter? A growing body of literature suggests these are important spaces for the spread of populist frames, but this is still understudied. Additional content analyses should also consider how patterns of communication relate to populist ideas spreading through elite actors. Does the media develop its own populist framing of climate change, or does it act more as a ‘mouthpiece’ for elite actors?

Critically, greater attention needs to be given to patterns over time, and both how and when populist frames emerged in the climate issue space. For example, while my analysis supports the idea that populist messaging may intensify skeptic arguments from uncertainty to

outright denial, future work could more strongly distinguish whether populist framing *caused* the intensification or if the adoption of populist framing is a product *of* intensification. With this, future analyses of the media's role in the spread of populist climate skeptic messages should seek to leverage new methods of text analysis combining both large-scale quantitative approaches and finer-grained qualitative assessment to compare both the frequency and nature of populist frames in different contexts.

### **Future Research: Links between Skeptic Frames and Attitudes**

Considering options for linking these media patterns to climate attitudes, future work on the effects of these populist skeptic frames should seek to untangle the different potential mechanisms that may link frames to climate attitudes. For example, future research should look more carefully at the use of emotion both in existing frames in the media, and the effect of frames in an experimental setting. Even without purposefully testing the effects of emotional language, open-ended responses to the populist framing condition in Chapter 4 were much more emotion-laden compared to the non-populist framing condition, both in those that agreed and disagreed with the information provided. This supports existing research on the use of negative emotions (e.g. fear and anger) in populist communication (Hameleer et al., 2016) and how anger specifically can be used to solidify in-group/out-group identities and the scapegoating of out-groups (Wahl-Jorgensen, 2018; Hawkins & Kaltwasser, 2018).

Likewise, also based on the open-ended answers in Chapter 4, future work should more closely consider the role of the information source presenting populist skeptic frames. Additionally, future studies might also ask respondents questions about media consumption to better identify potential previous exposure to populist climate skeptic frames. Future designs should also vary the type of conspiracy beyond science-based conspiracy theories. The

experimental respondents were asked whether they trusted different groups to act on climate change, and both Democrats and Republicans indicated that they trust scientists over other groups including the media and the government. Given that populist ideas target elites broadly, and not just scientists, future work might look to see if different conspiring groups might influence individuals differently based on existing levels of trust.

Furthermore, future studies should also compare different types of populist skeptic frames. I focused on process skeptic frames based both on their frequency in the media content analysis and Van Rensburg's (2015) argument that process skepticism might be particularly appealing to both skeptics and non-skeptics. Future studies should also consider the intersection between process and response skepticism. Specifically, how government-led conspiracies may be linked to both process and response critiques and used as justification to oppose government action. Studies suggest that response skeptic frames are common, and influential, in recent climate policymaking both in the United States and Canada (Rabe, 2010; Raymond, 2020). In France, the 'yellow vests' (*Mouvement des gilets jaunes*) opposed taxes on fossil fuels based on claims that the elite—particularly President Macron—were acting in the interests of the wealthy and did not represent the French people or their ways of life (Huber et al., 2020). This exemplifies how different skeptic claims may intersect in broader arguments against climate action and how individuals may believe in the existence of climate change but still oppose climate action based on negative attitudes towards the government.

### **Moving Forward: Responding to Populist Frames?**

Finally, future inquiry should examine how populist frames perform in competitive framing environments. It could be that the effects of populist skeptic frames emerge not in how they *change* individual attitudes—shifting individuals towards disbelief in climate change—but

instead how populist frames may *bolster* existing attitudes and solidify opposition through the connection of climate change to broader societal divisions between the “good” people and “corrupt” elite.

Inoculation theory provides one potential pathway for considering why populist process skeptic frames may bolster existing attitudes and prevent future communication. Inoculation theory represents a “proactive counterframing strategy” as frames in this vein seek to protect individuals from future attempts at persuasion by both (1) forewarning them that others will attempt to persuade them and (2) preempting anticipated opposition frames by refuting them (Niederdeppe et al., 2015). In the case of populist process skeptic frames, these messages warn of a manipulative elite class seeking to deceive the people and paint climate change as an effort to control the public, undermining any future information from these sources.

Thus, these process-driven frames might inoculate individuals from future information on climate change, even as the science grows increasingly certain that dangerous climate change is occurring. In other words, the use of process skeptic framing allows for the cherry picking of data based on assessments of the “credibility” of the scientific process (Van Rensburg, 2015) and may support continued skepticism even in the face of overwhelming contradictory evidence. These factors could, in turn, limit the success of future communication on climate change and related policies.

As the IPCC 2021 report made abundantly clear, now is the critical time to act on climate change. Despite scientists issuing increasingly stark warnings, populist communication in right-leaning media sources (the *Wall Street Journal* and *Fox News*) may pose a risk to climate policymaking, particularly considering the widespread use of process skeptic frames in populist messages. Populist climate skeptic messages paint climate change as manufactured by a broad

conspiracy of actors seeking to scare the public into giving over control. And, related to the presence of populist frames in the right-wing media, populism seems similarly influential on Republican climate attitudes. In an experimental setting, populist Republicans were more likely to both question the existence of climate change and oppose climate action compared to non-populist Republicans.

It is not yet clear whether momentary exposure to populist process skeptic messages has a direct effect on climate attitudes, yet there is reason to be concerned that the presence of these frames may limit the vitally needed political will to act. Process skeptic communication undermines both the scientific processes that define the problem and the policy processes that lead to solutions. And as described above, increasing skepticism in the processes of climate science may limit the power of future pro-climate messages to educate people on both the dangers of climate change and the need for climate action. Thus, the linking of climate change and climate actors to broader conspiracies using populist skeptic framing increases the need for careful communication to promote more sustainable, trust-driven relationships between scientists, industry, and society more broadly (Moffat et al., 2016).

## APPENDIX A. CONTENT ANALYSIS CODING

### Article Level Coding

Title: \_\_\_\_\_ Source: \_\_\_\_\_ Date: \_\_/\_\_/\_\_

1. What is the primary focus of the document?

- ☐ Climate Change
- ☐ Climate Action
- ☐ Both (Equally)

2. Document's overall position on climate change?

- ☐ Convinced
- ☐ Unsure
- ☐ Neutral
- ☐ Uncertain
- ☐ Reject/Dismiss

4. What is the main "topic" structure of the document?

- ☐ Climate Science
- ☐ Environment (non-human)
- ☐ Non-economic human impacts
- ☐ Economic impacts
- ☐ Morality/Ethics/Religion

### Paragraph Level Coding

5. Does the paragraph use populist framing?

- ☐ People-centrism
- ☐ Anti-elitism
- ☐ Popular sovereignty
- ☐ None

5. Type of skepticism contained in statement:

- ☐ Evidence
- ☐ Process
- ☐ Response
- ☐ None

## Codebook

### What is the primary focus of the document?

This refers to the article's primary motivation or area of coverage.

Climate Change	The article is focused on covering the effects of climate change (environmental, etc.) or climate scientific findings. Does not focus on certain actions or instruments that should be used to mitigate climate change (though may mention them).
Climate Action	The article is focused on covering individual or policy actions to mitigate climate change. This includes articles covering a particular policy and/or articles focused on actions (like reducing carbon footprint) that are/should be undertaken by individuals, groups, or governments.
Both	Covers both climate change and climate action equally.

*Note: if the focus of the article is not either climate change or climate policy, it is removed from the corpus.*

### Document's overall position on climate change?

Modified from Van Rensburg's (2015) and Hoffman's (2011). This is a sentiment assessment of the overall position of the article in relation to the existence of ACC and need for climate change action.

Ordered categories from complete certainty to extreme skepticism.

Convinced	Document expresses <u>complete certainty</u> that anthropogenic climate change is real and there is a pressing need to act. Includes documents supporting climate science, as well as documents calling for increased action backed by the logic that climate change is real and poses a threat to either the environment or human populations.
Unsure	Although the document <u>largely supports</u> anthropogenic climate change/climate change action, also expresses concerns related to taking actions and/or describes limits to our knowledge of climate change science or human contribution to climate change. (Main argument still supports ACC and/or action on climate change.)
Neutral	<u>Unable to determine</u> the position of the document or document does not support either position. Includes documents that present <u>opposing positions</u> for and against ACC equally for "fairness" or "balance."
Uncertain	Document <u>disputes or doubts</u> the high degree of consensus around climate science and/or the severity of climate change. Underplays the need for action or questions core claims of climate change science. Mild skepticism towards ACC or climate action. Includes statements that are agnostic towards climate change that discourage action.
Reject/Dismiss	The document <u>completely rejects or dismisses</u> the existence of anthropogenic climate change or the need for action. Gives evidence (scientific, anecdotal, etc.) that climate change is not happening, humans are not the cause, or climate change is beneficial and/or not a threat.



### What is the main “topic” structure of the article?

What is the “topic” around which the article frames its description of climate change or climate action. For example, an article that is about the loss of species in the Amazon due to increased temperatures would be an *Environment (non-human)* article, while a story detailing the Pope’s recent comments on climate change would be *Morality/Ethics/Religion* (Modified from Jett & Raymond, 2021).

Climate Science	Article focuses on scientific claims around climate change. This includes scientific evidence that ACC is certain/uncertain, climate change mechanisms, and apparent evidence (i.e. recent weather) that supports/undermines scientific claims.
Environment (non-human)	Article focuses on the effects (positive/negative/lack of effects) of climate change (or climate change action) on non-human communities. This includes habitat loss, threats to biodiversity, and impacts on natural systems (not connected to humans).
Non-economic human impacts	Article focuses on the non-economic impacts of climate change (or action) on human communities and individuals. This includes threats from ACC like drought, sea level rise, heat stress. Also includes loss of recreation (i.e. hunting, skiing), and public health concerns (i.e. poor air/water quality). Also includes human impacts of climate action, including loss of natural beauty to renewable energy structures (i.e. NIMBYs and wind farms)
Economic impacts	Article focuses on the economic impacts of climate change (or action) on individuals, businesses, and communities. This includes references to both macro- and micro- level economic effects. Includes references to overall economy (i.e. job losses and economic growth), business and individual effects (i.e. higher energy bills), and articles describing the overall competitiveness of the national economy vis-à-vis other international actors.
Morality/ Ethics/ Religion	Article focuses on the ethical dimension of climate change/climate action. This includes value-driven arguments around stewardship and climate change as a humanitarian crisis. Also includes articles focusing on the actions of religious leaders or statements by religious groups.
N/A	No main framing structure

### Does the article use populist framing?

Populist framing refers to messages related to one or more dimensions of populist ideas. See the Comparative Manifestos Project (2017) coding guidelines for examples of populist and non-populist phrases.

People-centrism	References that positively valorize a homogenous people ('pure people'). In order for a statement to be populist, the 'people' should be described in an unambiguously positive light, should be portrayed as a unified entity, and the paragraph should identify with them within that positive valorization.
Anti-elitism	References that negatively valorize a homogenous elite ('corrupt elite'). In order for a statement to be populist, it must mention elites and have a negative view towards elites in general. Additionally, that statement must describe the elite as hostile towards the people.
Popular sovereignty	Statements calling for greater power given to the people (' <i>Volonté Générale</i> '). Includes broad calls for greater involvement by the people and claims for greater politicization in the name of the people.
None	Paragraph does not contain populist component.

**Type of skepticism containing in statement:**

Taken from Van Rensburg (2015), objects of skepticism with accompanying examples of skeptic claims.

Evidence	Trend	<ul style="list-style-type: none"> <li>• No postindustrial warming</li> <li>• Data inconclusive</li> <li>• Unexceptional warming</li> <li>• Warming stopped</li> </ul>
	Cause	<ul style="list-style-type: none"> <li>• No CO2 causal mechanism</li> <li>• Entirely “natural” causes</li> <li>• Predominantly “natural” causes</li> <li>• Too early to tell</li> </ul>
	Impact	<ul style="list-style-type: none"> <li>• Negative impacts speculative</li> <li>• Extreme weather events unexceptional</li> <li>• Insignificant negative impacts</li> <li>• Significant positive impacts</li> <li>• Negative impacts only in distant future</li> </ul>
Process	Scientific knowledge generation processes	<ul style="list-style-type: none"> <li>• Climate change is a hoax</li> <li>• A lucrative climate industry now exists</li> <li>• Climate activists seek fame and money</li> <li>• Scientists manipulate/hide the evidence</li> <li>• Computer modeling overrated and unreliable</li> <li>• Peer review by “buddies”</li> </ul>
	Climate decision-making processes	<ul style="list-style-type: none"> <li>• Political interference in IPCC</li> <li>• Socialists and Greens drive the climate agenda</li> <li>• Wealth redistribution, world government agendas</li> <li>• Media sensationalism distort public opinion</li> </ul>
Response	Policy instruments	<ul style="list-style-type: none"> <li>• No problem—no response needed</li> <li>• Need to prepare for hot or cold scenarios</li> <li>• Better to invest in climate adaptation</li> <li>• Carbon pricing will not cut emissions enough</li> <li>• The costs of mitigation outweigh the benefits</li> </ul>
	Policy Style	<ul style="list-style-type: none"> <li>• Economy and jobs should not be harmed</li> <li>• Wait for global agreement—no unilateral response</li> <li>• A pragmatic and measured response is best</li> </ul>
None	Paragraph does not contain skeptic argument.	

## APPENDIX B. CONTENT ANALYSIS DESCRIPTIVE RESULTS

Looking at the overall topic framework of the individual articles, three topics emerged as the most common within this sample: Economic, Human Impacts, and Science (see Figure 1). Economic topics—which focus on the economic impacts of climate change (or action) on individuals, businesses, communities, or countries—were the most common article topic in two of the five newspapers (33% of *LA Times* and 52% of *WSJ* articles). Human impact topics—which highlight non-economic impacts of climate change (or action) on human communities and individuals—were most common in the *New York Times* (32%) and the *Chicago Tribune* (42%). Science topics were the most common in the *Fox News* sample by a considerable margin with 56% of articles focused on the science of climate change compared to the next highest category of economics at 20%. The *Boston Globe* had the most even distribution of topics, with both human impacts (23%) and science frames (23%) being most common in that paper. Articles focusing on non-human impacts and broad environmental effects of climate change (Environment) and the religious and/or ethical considerations of climate change (Morality) were far less common in all media sources. Most articles that fell outside of these topics (coded as “none”) were about partisan politics or political battles, particularly during election years.

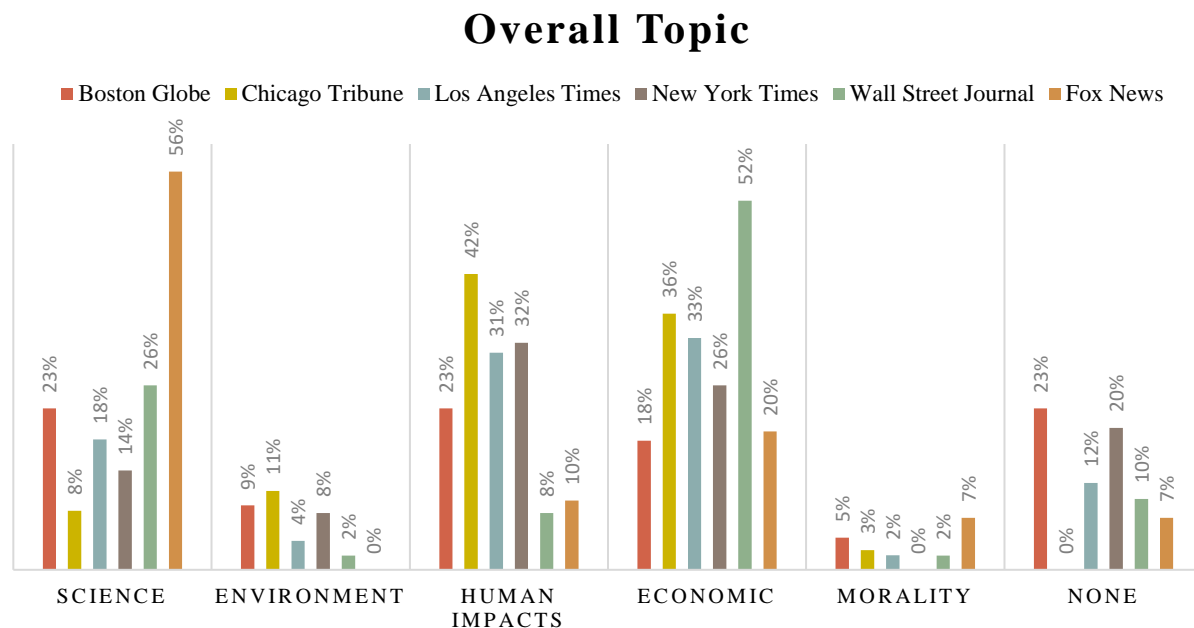


Figure 1: Article Topic by Source

Moving to skeptic vs. convinced logics, as discussed briefly in Chapter 3, four of the five newspapers uniformly expressed support for climate change and/or action across almost all articles (~94% of articles). For the *Boston Globe*, *Chicago Tribune*, *Los Angeles Times*, and *New York Times*, the significant majority of articles fell in the “convinced” logic (~94% of articles), meaning the article expressed *complete certainty* that anthropogenic climate change is real and there is a pressing need to act.<sup>12</sup> Of these, the *Chicago Tribune* was most likely to express concern over either the evidence of climate science or the costs of action within articles ultimately supporting the scientific consensus and need for action (unsure). Primarily, these “unsure” articles (particularly the *Chicago Tribune*) expressed concerns over the economic costs of policy action or the efficacy of the policy to successfully mitigate climate change. For example, a 2018 *Chicago Tribune* editorial first states: “Climate change is a real, perilous phenomenon that the planet would be foolish to ignore.” Then, the editorial goes on to ask: “Given that, the vexing question has always been, how do we sensibly protect our environment without manacled our energy-driven economy?”

Compared to the similarities between the above four newspapers, there is a significant departure in the editorial articles from the *Wall Street Journal* and *Fox News* programming (Figure 2). First, rather than the ~94% of articles operating from logics supporting anthropogenic climate change and related action, ~97% of the coded articles in the *Wall Street Journal* and *Fox News* stem from a skeptic logic of either disputing (uncertain) or outright rejecting (reject/dismiss) the high degree of consensus around climate science and/or the severity of climate change. For example, a 2018 editorial from the *Wall Street Journal* asks:

“Have we reached peak alarmism on climate change? The question occurs after the muted reaction last week to the latest forecast from the United Nation's Intergovernmental Panel on Climate Change. In case you hadn't heard we're all doomed, yet the world mostly yawned. This is less complacency than creeping scientific and political realism.”

This is a complete tonal shift in editorial decision-making and cannot be solely explained by the differences in topic choice. While the *Wall Street Journal* is a business-focused publication and does discuss economics more often than the other papers, these findings support previous

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<sup>12</sup> Given the opinion-based nature of the article types coded, very few articles in any newspaper expressed no opinion (Neutral) regarding climate change or climate action.

research that both non-editorial and editorial coverage of climate change in the *Wall Street Journal* differs significantly from other mainstream newspaper outlets (Feldman et al., 2017). Looking at *Fox News*, it is equally likely to oppose climate change, but is slightly more likely than the *Wall Street Journal* to express complete rejection rather than uncertainty (63% vs. 52% of articles). This could partially be explained by *Fox News*' focus on the science of climate change rather than the economic costs of climate action, which is more likely to lead to complete denial of climate change.

## Skeptic vs. Convinced Logics

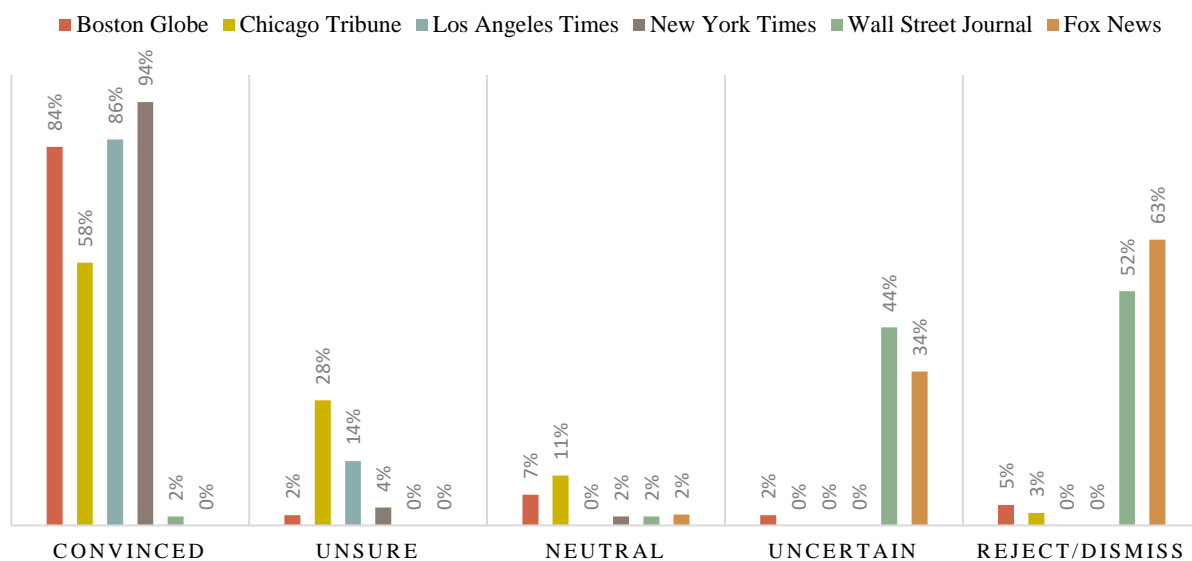


Figure 2: Skeptic vs. Convinced Logic by Article

To capture the prevalence of different skeptic frames within the articles, I documented each article that had one or more paragraphs containing each type of skepticism (Figure 3). Since the unit of analysis is the article, a single article can have multiple frames. Some newspapers, notably the *New York Times*, had very few instances of any type of skeptic frame throughout the sample. Others, like the *Wall Street Journal*—and to a lesser extent the *Chicago Tribune*—contained significant skeptic frames across categories. The most common skeptic frames in the *Chicago Tribune* were response frames, like a 2012 editorial describing how climate solutions could “damage the economy and stifle short-term growth.” Comparatively, the most common skeptic frames in the *Wall Street Journal* are what Van Rensburg (2015) classified as the core skeptic frame: evidence skepticism. Many of the evidence skeptic frames in the *WSJ* sample

covered identified “failings” of the IPCC report and other scientific findings related to climate change. *Fox News* was considerably more likely to have each of the different types of skeptic frames within each article. This is likely attributed both to the format of the programming—often programs have multiple guests presenting different reasoning for their arguments—and the overall length of the transcripts being significantly longer than the average newspaper article.

## Types of Skeptic Frames

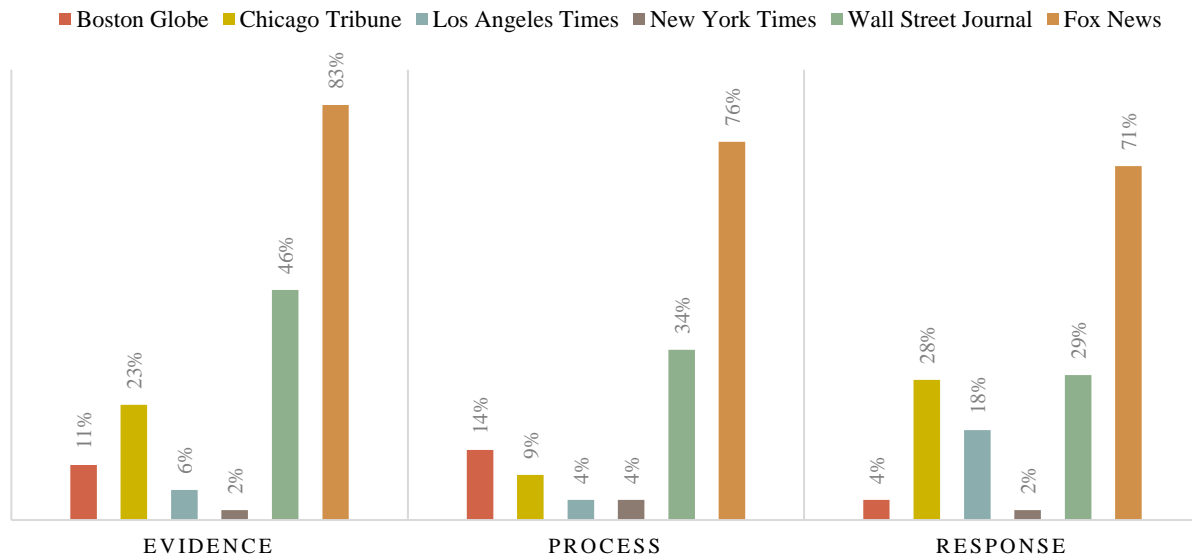


Figure 3: Skeptic Frames by Article

## APPENDIX C. SURVEY ITEMS & EXPERIMENTAL CONDITIONS

**Populist Attitudes:** Please indicate how much you disagree or agree with each statement.

	(1) Very Strongly Disagree	(2) Strongly Disagree	(3) Disagree	(4) Neither agree nor disagree	(5) Agree	(6) Strongly Agree	(7) Very Strongly Agree
Politicians should always listen closely to the problems of the people.							
Politicians don't have to spend time among ordinary people to do a good job.							
The will of the people should be the highest principle in this country's politics.							
The government is pretty much run by a few big interests looking out for themselves.							
Government officials use their power to try to improve people's lives.							
Quite a few of the people running the government are crooked.							
You can tell if a person is good or bad if you know their politics.							
The people I disagree with politically are not evil.							
The people I disagree with politically are just misinformed.							



**Conspiracy:** Please indicate how much you disagree or agree with each statement.

	(1) Strongly Disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly Agree
A powerful and secretive group known as the New World Order are planning to eventually rule the world through an autonomous world government which would replace sovereign governments.					
The assassination of Martin Luther King Jr. was the result of an organized conspiracy by U.S. government agencies such as the CIA and FBI.					
The Apollo moon landings never happened and were staged in a Hollywood film studio.					
The assassination of John F. Kennedy was not committed by the lone gunman Lee Harvey Oswald but was rather a detailed organized conspiracy to kill the President.					
The U.S. government allowed the 9–11 attacks to take place so that it would have an excuse to achieve foreign (e.g., wars in Afghanistan and Iraq) and domestic (e.g., attacks on civil liberties) goals that had been determined prior to the attacks.					
Princess Diana's death was not an accident but rather an organized assassination by members of the British royal family who disliked her.					
The claim that the climate is changing due to emissions from fossil fuels is a hoax perpetrated by corrupt scientists who wish to spend more taxpayer money on climate research.					

U.S. agencies intentionally created the AIDS epidemic and administered it to Black and gay men in the 1970s.					
The alleged link between second-hand tobacco smoke and ill health is based on bogus science and is an attempt by a corrupt cartel of medical researchers to replace rational science with dogma.					

**Control Condition:**

**Letter to the Editor: Problems with Nursing Home Care**

**Anonymous**

While many long-term care providers do their best to care for our most vulnerable citizens, I have witnessed firsthand the less-than-optimal conditions in some nursing homes and long-term care facilities.

While there are some severe cases, most issues—like bed sores and minor errors—are caused by low reimbursements. This leads to bedside care being performed by nurse assistants who barely make living wages and have inadequate training and high turnover rates. Ultimately, this creates an environment prone to inadequate and inconsistent care.

For example, preventing pressure injuries, like bed sores, in bed-bound patients is one of the most challenging aspects of nursing home care. It requires trained, knowledgeable staff, specialized pressure-reducing mattresses and repositioning patients every two hours. This type of care too often is not performed, resulting in severe wounds, infections and often death.

Additionally, many facilities rely of self-reporting about staffing, disease rates, and medication errors as well as neglect and abuse. This can lead many nursing home administrators to not focus enough on quality and accountability. While abuse and neglect cases are rare, we must foster an approach that creates a shared responsibility for doing what is best for residents, recognize good-faith efforts, and remedy issues.

I urge families to research the facilities through in-person visits to observe the environment, ask questions about care and activities, and promote discussions with resident family members. And we also need industry-wide efforts to make real, measurable improvements in quality of care.

## **Non-populist Evidence Skepticism Condition:**

### **Letter to the Editor: There's no sign humans have caused climate change**

**Anonymous**

Scientific evidence does not conclusively link climate change to human action. The climate is changing -- it always is.

The evidence is piling up that "climate change" is losing evidentiary support, despite recent "preliminary findings" from the National Oceanic and Atmospheric Administration (NOAA) that climate scientists say may prove that "warming has boosted the chances, in some cases significantly, that certain unwelcome weather or weather-related disasters will occur."

By contrast, Remote Sensing Systems (RSS) is a scientific research company located in Northern California, specializing in satellite microwave remote sensing of the Earth. According to RSS, the Earth's temperature has not increased in the past 18 years and nine months, a record. For another predicted dangerous effect of climate change—sea level rise—the evidence is even shakier. NASA Sea Level Change Team in 2014 found no deep ocean warming since 2005 and Flinders University placed sophisticated tide gauges on 12 Pacific islands and found no change in the ocean levels.

Most bad weather -- from hurricanes to tornadoes -- are unwelcome to those in their paths, but these weather phenomena have existed for centuries. Both sides seem to agree that CO2 levels are elevated, but they don't agree on whether that will cause dangerous climate change, including rising temperatures and turbulent weather. As the Nongovernmental International Panel on Climate Change (NIPCC) argues: "The human effect is likely to be small relative to natural variability."

## **Populist Process Skepticism Condition:**

### **Letter to the Editor: There's no sign humans have caused climate change**

**Anonymous**

Climate alarmism is now a religion with gods, sinners and indulgences, that seeks to crush those who dare to speak out.

Man-made "climate change" is a largely a myth designed to scare the average person into accepting increased power given to elites at the expense of the public. And state-funded scientists are given thousands and even millions of dollars to help promote the myth of "global warming" by fitting their data into the fearmongering agenda. The "scientific consensus" is based in part on a fear of backlash and reputational damage, causing many to remain silent or ignore news of manipulated climate models.

The evidence is piling up that "climate change" is losing evidentiary support, despite recent "preliminary findings" from the National Oceanic and Atmospheric Administration (NOAA) that climate scientists say may prove that "warming has boosted the chances, in some cases significantly, that certain unwelcome weather or weather-related disasters will occur." By contrast, Remote Sensing Systems (RSS), a scientific research company specializing in satellite microwave remote sensing of the Earth, found that the Earth's temperature has not increased in the past 18 years and nine months, a record.

Zealous preachers of climate alarmism seek to scare their flock with forecasts of catastrophe, horror, and threats to civilization. This doomsday mantra of climate scientists is guided by elitist goals and a desire for control over the public, whether it is what businesses decide or what consumers do. In sum, climate change science is driven by self-interested elite motivations not strong scientific evidence.

**Information Trust:**

Was the information provided in the letter trustworthy? (7 point scale *definitely not* to *definitely*)

Why or Why not?

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**ACC Belief:**

	(1) Definitely Not						(7) Definitely
Do you believe that climate change is anthropogenic (caused by human behavior)?							
Do you believe that climate change is occurring?							
Do you believe that climate change is a hoax?							
	(1) Not Likely at All						(7) Extremely Likely
How likely do you think it is that, in your lifetime, the effects of climate change will be noticeable (species extinction, glacial melting, severe weather such as hurricanes, increased temperatures)?							
How likely do you think it is that climate change is occurring?							
How likely do you think it is that							

scientists will eventually discover that climate change is NOT man-made after all?							
How likely do you think it is that climate change is a hoax?							

### **Trust:**

How much do you trust the following organizations in addressing climate change and energy issues?

	(1) Do not trust at all	(2) Do not trust very much	(3) Neither trust nor distrust	(4) Trust somewhat	(5) Trust completely
University research institutions					
Environmental protection organizations					
Consumer organizations					
Media					
Government					
Private companies					
Energy companies					
Scientists					

### **Policy Support:**

How much do you support or oppose the following policies?

	(1) Strongly oppose	(2) Somewhat oppose	(3) Somewhat support	(4) Strongly support
Fund more research into renewable energy sources, such as solar and wind power.				
Regulate carbon dioxide (the primary greenhouse gas) as a pollutant.				
Set strict carbon dioxide emission limits on existing coal-fired power plants to reduce global warming and improve public health. Power plants would have to reduce their emissions and/or invest in renewable energy				

and energy efficiency. The cost of electricity to consumers and companies would likely increase.				
Require electric utilities to produce at least 20% of their electricity from wind, solar, or other renewable energy sources, even if it costs the average household an extra \$100 a year.				

## Demographics

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What is your age (in years)? \_\_\_\_\_

With which gender(s) do you identify?

- ☐ Man
- ☐ Woman
- ☐ Non-binary
- ☐ I prefer a different term (please specify): \_\_\_\_\_

With which racial/ethnic group(s) do you identify?

- ☐ White/Caucasian
- ☐ African American
- ☐ Hispanic/Latinx
- ☐ Asian American
- ☐ Native American/Pacific Islander
- ☐ Middle Eastern (Arab)
- ☐ Middle Eastern (Non-Arab)
- ☐ Multiracial \_\_\_\_\_
- ☐ A different identity (please specify) \_\_\_\_\_

What is the highest level of education you have completed?

- ☐ Less than High School
- ☐ High School/GED
- ☐ Some college
- ☐ 2-year college degree
- ☐ 4-year college degree
- ☐ Master's degree
- ☐ Doctorate degree
- ☐ Professional degree (JD, MD)



What is your annual family income?

- ☐ Less than \$25,000
- ☐ \$25,001 to \$50,000
- ☐ \$50,001 to \$75,000
- ☐ \$75,001 to \$100,000
- ☐ \$100,001 to \$250,000
- ☐ \$250,001 or more

Where on the following scale of political orientation would you place yourself?

1	2	3	4	5	6	7	8	9
Extremely Liberal/Left-wing					Extremely Conservative/Right-wing			

In politics today, do you consider yourself a Republican, Democrat, or independent?

- ☐ Republican
- ☐ Democrat
- ☐ Independent
- ☐ Other \_\_\_\_\_

1. [Ask if Independent/Other] As of today do you lean more to the Republican Party or more to the Democratic Party?

- ☐ Lean Republican
- ☐ Lean Democrat

How religious are you?

1	2	3	4
Not at all religious	Slightly religious	Very religious	Extremely religious

With what religion do you most closely identify?

- ☐ Evangelical Christian
- ☐ Protestant Christian
- ☐ Catholic
- ☐ Mormon
- ☐ Jehovah's Witness
- ☐ Orthodox Christian
- ☐ Jewish
- ☐ Buddhist
- ☐ Hindu
- ☐ Muslim
- ☐ Agnostic/Atheist/None
- ☐ Other Christian (please specify)
- ☐ Other (specify)
- ☐ I don't know

## APPENDIX D. EXPERIMENTAL ANALYSIS

Table 1: Variable descriptions and descriptive statistics

Variable	Description	Mean	SD	Max	Min
ACC Belief	Index of belief in climate change (7 questions, 7-point scale)	5.72	1.58	1	7
Policy Support	Index of support for climate policies (4 policies, 4-point scale)	3.13	0.93	1	4
Populist Attitudes	Combined populism score	0.23	0.17	0	0.89
Conspiracist Ideation	Index of belief in conspiracy theories (6 statements, 5-point scale; PC1)	0	1	-1.02	3.32
Trust	Index of trust in addressing climate change (8 items, 5-point scale)	-.10	0.76	-2	2
Age	Self-reported age of respondent (in years)	44.50	13.88	19	89
Religiosity	Self-reported religiosity (“How religious are you,” 5-point scale)	2.31	1.39	1	5
Anti-Elitism	PC1; Anti-elitist sub-scale	0	1	-1.88	2.82
Manichean Outlook	PC1; Manichean Outlook sub-scale	0	1	-5.07	1.16
People-Centrism	PC1; People-Centrism sub-scale	0	1	-3.31	1.56

Table 2: Regression Table Belief in ACC

	Coef.	SE	95% CI		<i>p</i>
			<i>LL</i>	<i>UL</i>	
Treat					
Non-Populist	-0.04	0.09	-0.22	0.15	0.705
Populist	-0.15	0.09	-0.31	0.02	0.094
Party					
Democrat	0.64	0.16	0.32	0.96	0.001
Independent	0.28	0.17	-0.05	0.62	0.099
Populism	-2.67	0.44	-3.55	-1.80	0.001
Party*Populism					
Democrat	3.18	0.54	2.11	4.24	0.001
Independent	1.64	0.59	0.47	2.80	0.006

*Note.* Adj  $R^2 = 0.38$ , total  $N = 469$ . CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Table 3: Regression Table Policy Support

	Coef.	SE	95% CI		<i>p</i>
			<i>LL</i>	<i>UL</i>	
Treat					
Non-Populist	-0.04	0.10	-0.23	0.15	0.670
Populist	-0.07	0.09	-0.24	0.11	0.447
Party					
Democrat	0.65	0.17	0.32	0.98	0.001
Independent	0.18	0.18	-0.16	0.53	0.297
Populism	-2.38	0.46	-3.28	-1.47	0.001
Party*Populism					
Democrat	2.81	0.56	1.72	3.92	0.001
Independent	1.71	0.61	0.52	2.91	0.005

*Note.* Adj  $R^2 = 0.32$ , total  $N = 469$ . CI = confidence interval; *LL* = lower limit; *UL* = upper limit

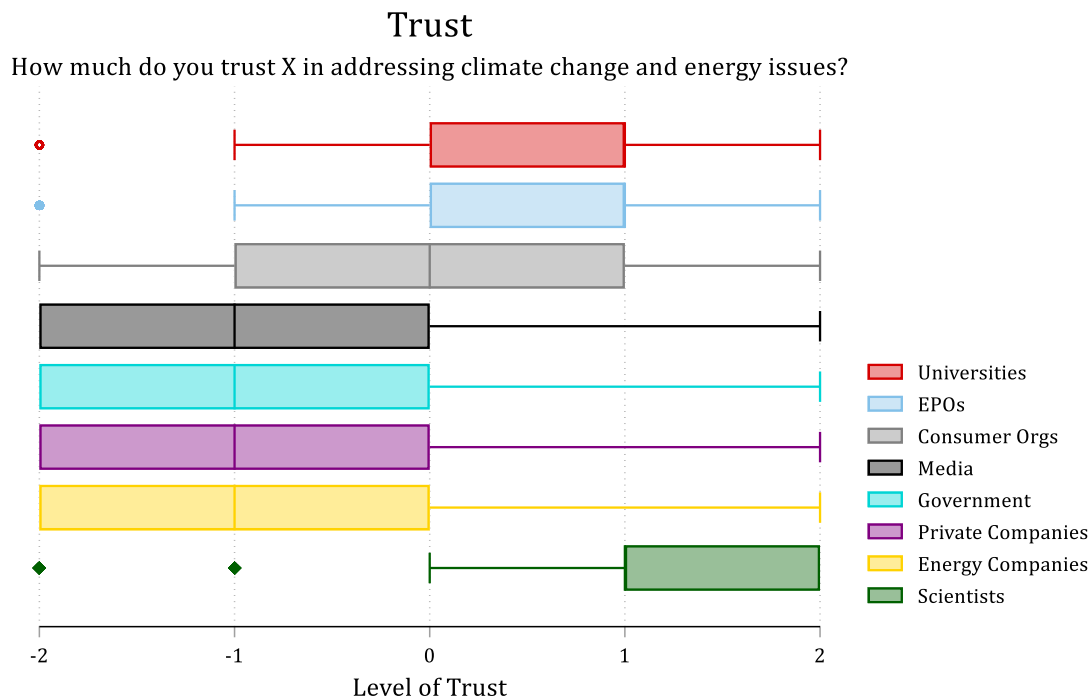


Figure AD.1: Trust in Groups/Institutions to Address Climate Change

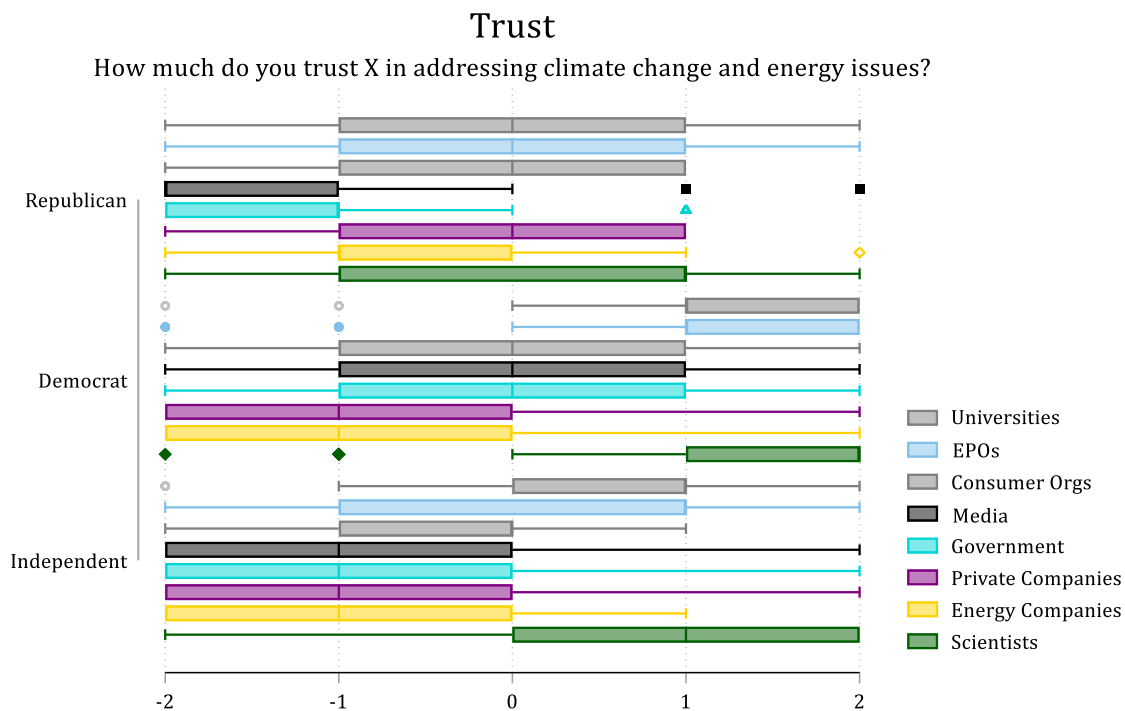


Figure 2: Trust in Groups/Institutions to Address Climate Change, by Partisanship

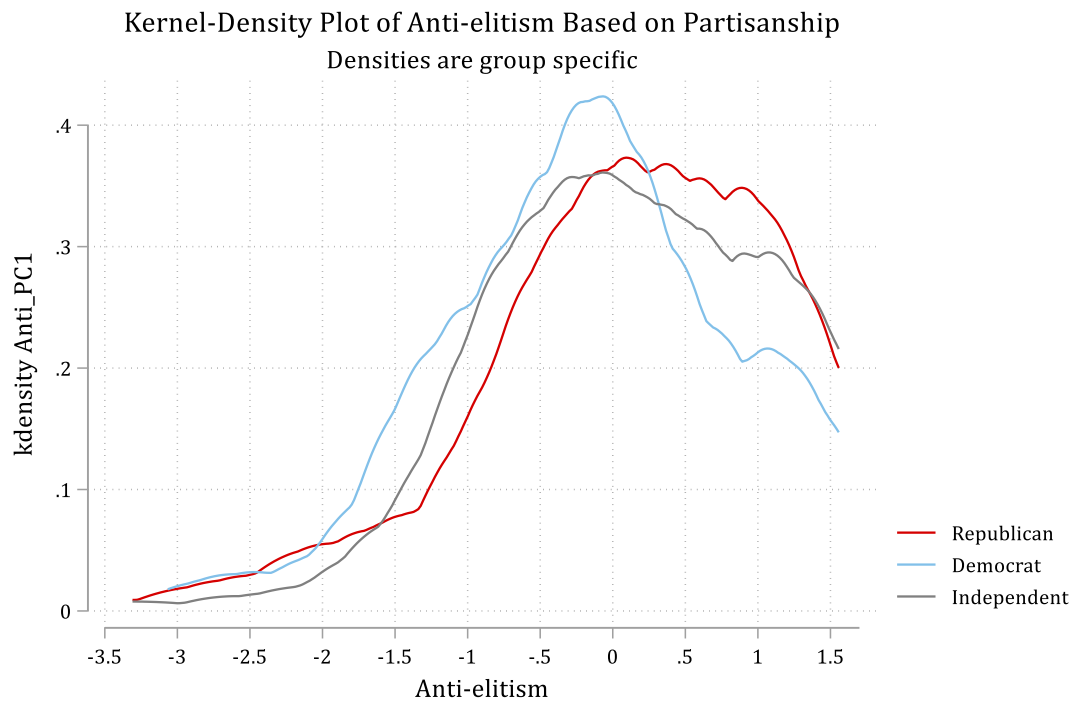


Figure 3: Density Plot of Anti-elitism by Party

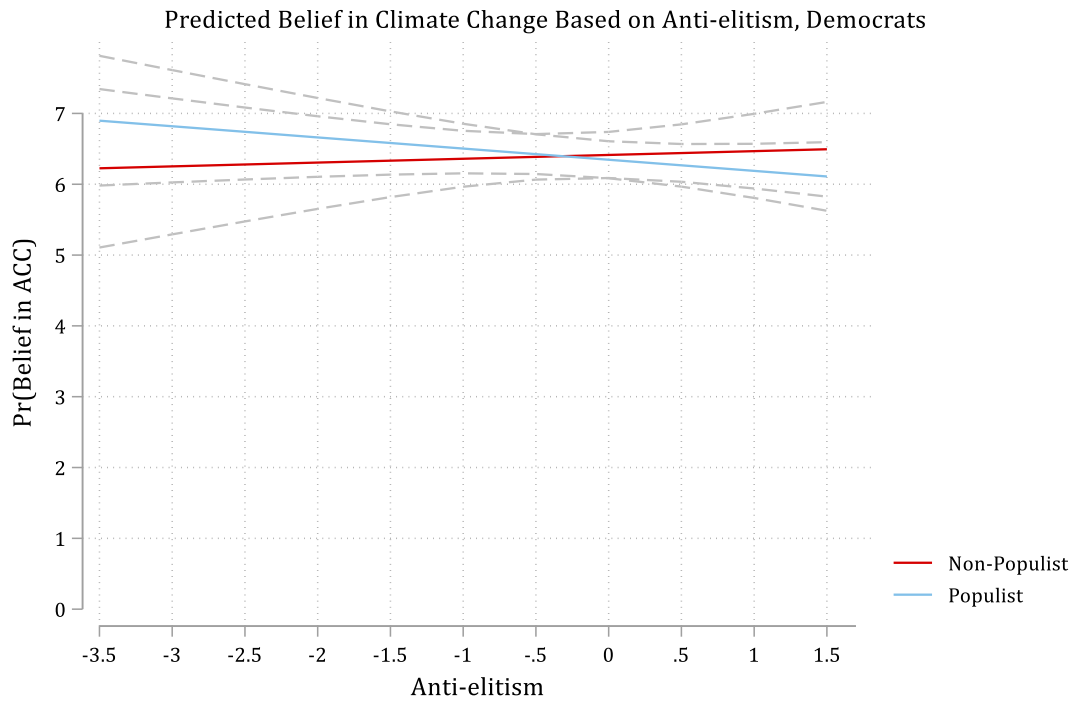
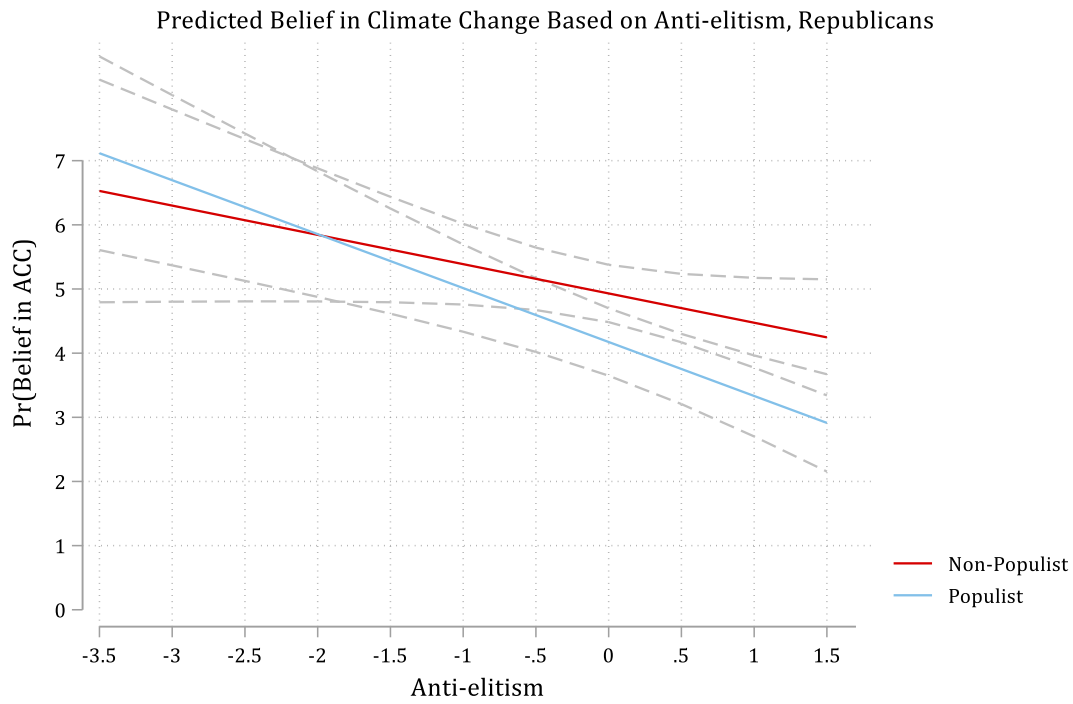


Figure 4: Climate Attitudes based on Anti-Elitism and Treatment Condition (by Partisanship)

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