

The Effect of Racial Resentment and Out-Group Cues on Support for Climate Policy*

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Abstract

Understanding public support for climate action is critical to advancing climate policy. I argue that the perceived racial distributive effects of climate policy shape the climate opinions of White Americans. Specifically, I formalize two mechanisms through which racial resentment may reduce support for climate action: perceived out-group benefit and perceived out-group harm. I examine this relationship using data from the Cooperative Election Study and a preregistered survey experiment. The correlational data show that higher levels of racial resentment are associated with lower support for both domestic and international climate policies, regardless of political affiliation. The experimental results further explore these mechanisms and show that providing White respondents with information about people of color benefiting from climate action or being disproportionately harmed by climate change reduces their support for climate action, with the largest negative effects among those high in racial resentment. These results hold across partisan lines and for both domestic and international climate policies, underscoring how racialized distributional cues can erode public support for climate cooperation.

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1 Motivation

Climate change is a global phenomenon that demands coordinated international and domestic policy responses (Peterson 2022). Yet, despite growing awareness of its devastating effects, especially on vulnerable populations (Newell 2005), public support for large-scale climate action in the United States (U.S.) remains fractured. As the world’s second largest emitter and key player in global climate negotiations, the United States plays a crucial role in addressing the global climate crisis. Domestic political support is an important driver of ambitious climate policy (Gaikwad, Genovese, and Tingley 2022), making it valuable to understand how the opinions of White Americans, the largest racial voting bloc in the U.S., influence the political feasibility and design of climate policy.

This paper focuses on the racial attitudes of White Americans as a key feature in the study of climate policy support. Although public opinion on climate change has been widely studied (Egan and Mullin 2017), less attention has been paid to how perceptions of racial groups influence this opinion. Racial dynamics are central to American politics and policy preferences (O’Brian 2024), and climate policy is no exception (Bullard and Johnson 2009) as the effects of climate change are experienced differently around the world due to inequalities. Therefore, addressing the impacts of global climate change is not only inherently complex, but also deeply intertwined with the political challenges of social justice.

Policymakers increasingly emphasize the disproportionate harms of climate change in communities of color through initiatives such as the Biden administration’s White House Environmental Justice Interagency Council; the Justice40 plan, which emphasizes investment in communities of color; Environmental Justice Block Grants in the Inflation Reduction Act (IRA), and global appeals to climate justice such as the Green Climate Fund established by the United Nations Framework Convention on Climate Change. As a result, public opinion may be shaped not only by environmental concerns but also by perceptions of how policy benefits are distributed across racial groups. These perceptions are also amplified by prominent conservative commentators like Tucker Carlson, who framed the IRA’s climate spending as advancing “identity politics and race hate” (Atkin 2023). Furthermore, during President Trump’s second term, the Environmental Protection Agency pledged to “end the use of ‘environmental justice’ as a tool for advancing ideological priorities” (Randolph and Trotta 2025). For White Americans who already perceive that government policies disproportionately benefit communities of color, such rhetoric may reinforce the belief that climate action serves out-group interests, thereby reducing their support for such policies.

This paper investigates the mechanisms by which racial resentment shapes support for climate policy among White Americans by testing how individuals respond to racialized cues that

emphasize either the harms of climate change to people of color or the benefits of climate policy for these groups. In addition, I explore whether these dynamics differ when climate action is framed as domestic versus international in scope, thus shedding light on the mechanisms that link racial attitudes to both domestic and global environmental cooperation. This paper makes theoretical and empirical contributions to research on U.S. climate opinion. Theoretically, I argue that perceptions of which racial groups stand to gain from climate policy shape public opinion, particularly among racially resentful Whites. Racially resentful individuals are more likely to interpret climate action as a form of resource redistribution to racial out-groups they perceive as undeserving, particularly when policies are framed through the lens of environmental justice.

While intended to address important climate disparities (Bullard 2018), such policies may activate zero-sum thinking and status threat among Whites (Jardina 2019). Extending previous work linking racial resentment to climate attitudes (e.g., Benegal 2018; Chanin 2018), I introduce and test two pathways through which racial resentment may reduce support for climate action: (1) hostility toward perceived out-group beneficiaries, and (2) reduced empathy for out-groups disproportionately harmed by climate change. I find that priming White respondents with information about either the benefits of climate action for communities of color or the harms they disproportionately face reduces support for climate action, especially among those with higher levels of racial resentment.

By decoupling the effect of the treatments by level of racial resentment, I find evidence of a linkage between feelings of racial resentment and reduced support for climate action. In particular, I find that higher levels of racial resentment exacerbate the negative effect of a cue emphasizing that people of color are the group most harmed by climate change. This suggests that racial resentment is linked to climate opinion by heightened hostility to the racial out-group that may be protected by climate policy.

Methodologically, I extend the literature on the link between racial resentment and public opinion of the climate in two primary ways. First, I use correlational data from the 2020 Cooperative Election Study (CES) to investigate the relationship between feelings of racial resentment and approval of climate policy and explore how this relationship holds across two types of climate policy: domestic and international. Although previous research on this linkage has emphasized domestic politics, international climate policy often involves cross-national transfers (Gaikwad, Genovese, and Tingley 2025), which can heighten sensitivity to perceived beneficiaries and make such policies vulnerable to racialized perceptions among White Americans. By examining the relationship between racial resentment and support for international climate action, I extend existing work beyond the domestic context in a theoretically and substantively important direction.

International climate agreements are essential to address the global impacts of climate change (Gaikwad, Genovese, and Tingley 2022). Distinguishing between domestic and international climate policy enables this paper to test whether racial resentment operates differently depending on the racial and national identity of perceived beneficiaries. This distinction is important for understanding whether racial resentment generalizes across national borders or is limited to domestic contexts. Although most prior work on climate racialization has focused on domestic climate politics, international cooperation raises distinct considerations, especially regarding public perceptions of whether foreign, often non-White populations are deserving of support.

Investigating the link between racial attitudes and support for international climate policy is therefore useful for understanding how public opinion may constrain or enable effective global climate action thereby shedding light on the mechanisms that link racial attitudes to both domestic and global climate cooperation. This is crucial because an emerging public consensus on the importance of addressing climate change may push American political elites towards action.

Second, although previous work has identified a link between racial resentment and climate attitudes (e.g., Benegal 2018; Benegal and Holman 2021; Chanin 2018), this research is largely correlational and often attributed to spillover of attitudes toward President Obama. I extend that framework by examining how in-group racial preferences shape climate opinion through an original survey conducted on a representative sample of White Americans. This approach is valuable for two main reasons. First, while correlational analysis provides important insights, it is susceptible to omitted variable bias, which is less of a concern in a randomized experiment.¹ Second, conducting a survey experiment strengthens causal inference and directly tests the mechanisms of interest. The experimental design allows greater internal validity by isolating the effects of racialized climate frames and offers clearer leverage on how racial resentment may shape support for climate policy.

Additionally, recent climate change mitigation policy including the Inflation Reduction Act (IRA) in the U.S. includes elements of environmental justice policy (Senate Democrats 2022) seeking to correct inequities and address the scientific reality that non-Whites are most affected by climate change (Bullard 2018). The evidence on if policies that include such elements are popular among the American public is mixed; while some research finds that climate policy that includes social justice elements is preferred (Bergquist, Mildemberger, and Stokes 2020) other work finds that climate policy with components addressing racial inequities (English and Kalla 2021) or social justice policies (Marshall et al. 2024) are less popular.

1. To mitigate this in the correlational analysis, I include a comprehensive set of controls in the correlational models, accounting for factors such as partisanship, education, income, and geographic region.

This paper adds to a body of evidence that racial resentment and out-group racial prejudice influence climate beliefs, finding that respondents with higher levels of racial resentment are less supportive of both domestic and international climate policy. Additionally, by randomly presenting some White respondents with information on the environmental justice goals of a hypothetical climate policy, I contribute to a body of literature showing that among some White Americans connecting climate policy with environmental justice aims may come with a cost in terms of public support. My findings thus provide new insight into the conditions that influence public support for climate policy among members of the American public. I find evidence that suggests a pivotal role for racial attitudes, and in particular, feelings of racial resentment on public support for effects to address climate change among White Americans.

In doing so, I bridge a divide between literature from American Politics, which repeatedly finds that racial prejudice and group-based considerations shape domestic policy attitudes, and findings from international political economy concerning non-material explanations for policy preferences. Furthermore, I contribute to an emerging literature that situates race and racial attitudes as crucial to the formation of foreign policy opinions (e.g., Mutz, Mansfield, and Kim 2021; Rathbun, Parker, and Pomeroy 2024; Rosenberg 2022).

2 Theory

In this paper, I focus on the climate attitudes of self-identified White Americans for both theoretical and practical reasons. First, a growing body of scholarship shows that racial resentment is a predictor of climate attitudes (e.g. Benegal 2018; Chanin 2018). Second, the classic racial resentment scale I employ was specifically designed for White respondents. As Kinder and Sanders define it, racial resentment reflects “white feelings towards blacks” (Kinder and Sanders 1996, 293). Subsequent research such as Davis and Wilson (2021) has cautioned against applying the same items to respondents from other racial groups. Third, White Americans make up the largest share of registered voters in the U.S., giving their preferences considerable, though certainly not exclusive, political weight.

That influence is also visible on the ground Stokes et al. (2023) finds that opposition to wind energy projects is higher where the density of white population is greater, creating an “energy privilege”. These types of local battle are one area where opposition by White majorities has demonstrably slowed decarbonization efforts. Understanding how racial attitudes shape White Americans’ climate views is useful to explaining broader public opinion on climate policy. Although the present study centers on White respondents for these reasons, the conclusion highlights the value of extending this line of inquiry to non-White populations.

I briefly detail explanations for climate attitudes, then position my theory within existing

research on the connection between racial beliefs and climate opinion. While existing research has identified a wide range of predictors of climate attitudes, less attention has been paid to the role of racial attitudes, especially in the context of international climate cooperation. Research on climate opinion highlights a range of demographic predictors, including gender (Bush and Clayton 2022), employment sector (Tvinnereim and Ivarsflaten 2016), education (Kahan 2015), and geographic exposure to climate impacts (Arias and Blair 2024). Other studies point to psychological dispositions such as populist attitudes (Huber 2020), time horizons (Gazmararian 2024), risk perceptions (Van der Linden 2015), empathy (Arias and Blair 2022), and consideration of future consequences (Beiser-McGrath and Huber 2018). Still others explore the role of institutional design in shaping public opinion (e.g., Bechtel and Scheve 2013; Huber, Wicki, and Bernauer 2019) or material concerns (Beiser-McGrath and Bernauer 2024).

Another key line of research on particularly American climate opinion explores the partisan divide on climate attitudes (e.g., Goldberg et al. 2021). Partisan polarization of climate opinions has increased over time (Egan, Konisky, and Mullin 2022), with Republicans still less likely to support efforts to address climate change (Dunlap, McCright, and Yarosh 2016; Tyson, Funk, and Kennedy 2023).

This polarization is shaped in part by how climate change is framed, including cues from political leaders, media narratives, and personal experiences with climate-related disasters (Arias and Blair 2024; Brulle, Carmichael, and Jenkins 2012). Elite rhetoric, in particular, plays a powerful role in shaping racialized interpretations of climate action.² For example, statements by Republican elites can racialize climate action (Benegal 2018), encouraging Whites to see climate action as benefiting people of color. In contrast, Democratic politicians often promote climate justice initiatives such as those included in policies like the IRA or the Green New Deal, thereby raising the profile of climate justice (Coleman 2019).

These frames do not operate in a vacuum; rather, they resonate with preexisting public attitudes, particularly racial resentment, which reflects concern that government policies unfairly redistribute resources to racial out-groups. When climate action is framed as addressing racial inequality or benefiting communities of color, racially resentful Whites may interpret it as unjust group-based redistribution. Understanding these dynamics helps explain how climate opinions are shaped among White Americans, particularly in an era of racialized public discourse. More broadly, it highlights the enduring influence of racial attitudes in U.S. public opinion.

2. Elite cues act as one pathway through which latent racial attitudes may be activated. While the experiment uses stylized language mimicking elite rhetoric, it is designed to isolate the psychological effects of racialized framing regardless of how commonly such cues appear in public discourse. The theory does not necessarily depend on the widespread presence of elite messaging; however, the policy relevance of the findings is likely greater when such framing is more prominent.

2.1 Race as a central feature in American politics

Scholars systematically studying American public opinion have long noted the centrality (Converse 1964; O'Brian 2024) and stability of racial attitudes among members of the public. Additionally, opinions about Black Americans among White Americans are often based on perceived material interest (Giles and Evans 1986). Whites who exhibit high levels of racial resentment are concerned that resources, such as funding to address climate impacts, will be used on the interests of Black Americans (Dietz et al. 2018). This resentment based on material interests causes a variety of spillover effects, whereby public opinion on issues that are not explicitly racial become racialized (Tesler 2012).

Recent scholarship has found support for the idea that racial attitudes can influence public opinion in a wide array of issue areas. For example, Ballard-Rosa, Martin, and Scheve (2017) find that White Americans with higher levels of racial resentment desire lower taxes on wealthy Americans who they believe are more likely to be White. Because income and race are correlated, this finding suggests that Whites who exhibit higher levels of racial resentment are more opposed to income redistribution because they fear that poorer non-White people will benefit.

Therefore, it is important to consider how perceptions of the beneficiaries of policy develop. If a policy has been racialized then Whites who are concerned with maximizing benefits to their own group are more likely to perceive the beneficiaries of the policy as non-White and less likely to support it (Jardina 2019, 44).

This “spillover of racialization” (Tesler 2016) phenomenon is observed in a variety of topics including healthcare (Tesler 2012) and public opinion about the existence of global warming (Benegal 2018). As a result, individuals high in racial resentment may view policies as disproportionately benefiting Black Americans and become less supportive of it. This dynamic reflects a broader pattern in which racialized political messaging erodes support for progressive policies more generally (Konisky and Woods 2016).

2.2 Influence of racial resentment on international policy preferences

A burgeoning literature suggests that the attitudes of White Americans towards racial outgroups influences both their foreign and domestic policy attitudes (Maass 2023; Rathbun, Parker, and Pomeroy 2024). As Richard W. Maass observes, racialization “blurs the common theoretical distinction between domestic and foreign policy” and “casts phenomena directly in terms of racial identities, generating clearly observable racial implications” (Maass 2023, 101, 103). These insights underscore the central role of racial perceptions in the formation of both domestic and foreign policy opinions.

I extend this argument to attitudes toward international climate cooperation arguing that

feelings of racial resentment lower support for climate action. Crucially, Evers and Schaaf (2024) report that racial resentment toward foreign Black populations is highly correlated with the classic measure introduced by Kinder and Sanders (1996). They conclude that “Americans broadly harbor racial sympathy/antipathy toward Black people writ large” (Evers and Schaaf 2024, SI:15).

Understanding how racial perceptions shape support for international cooperation, including climate policy, helps explain public opinion. Mutz, Mansfield, and Kim (2021) demonstrate that the perceived dominant racial group in a partner country affects the willingness of white Americans to trade with that country. Similarly, Rathbun, Parker, and Pomeroy (2024) argue that reluctance to use force against democracies mainly reflects a preference for states seen as majority White. Knowing which groups are perceived by the public to gain or lose from cooperation is therefore essential to explaining how individuals form international policy preferences.

Similarly to how “trade has become yet another ‘racialized’ issue” (Mutz, Mansfield, and Kim 2021, 562), I posit that higher racial resentment results in a decline in support for international climate agreements. While these mechanisms have been studied primarily in domestic policy contexts, they are relevant in the international arena. Multilateral climate agreements including the COP21 agreement, the Green Climate Fund or loss and damage negotiations are often framed by politicians like Donald Trump as redistributing American resources to poorer, majority non-White countries (Trump 2017).

For some individuals, this may activate the same zero-sum concerns as international trade or reduce support due to perceptions of out-group undeservingness. Thus, international climate cooperation becomes racially coded through perceptions of who benefits or who is harmed. Like trade, climate policy may become racialized through perceived zero-sum dynamics, where U.S. resources are seen as benefiting racially “othered” populations abroad. Thus, Americans high in racial resentment may believe that such agreements impose costs on the U.S. while channeling resources to people of color abroad and therefore oppose them.

To understand how racial resentment is activated in this context, it is important to consider who the perceived beneficiaries of climate cooperation are. The racialization of international climate action stems less from the nature of climate policy itself and more from who is perceived to benefit, namely, developing nations, which are often imagined in racialized terms by the American public (Mutz, Mansfield, and Kim 2021, 562). This type of framing may result in a backlash based on racialization of the developing world.³ This racialization process is similar to previous research illustrating that Americans often conflate foreign aid or multilateral

3. As leaders including U.N. Secretary-General António Guterres note those countries least responsible for climate change often suffer the most (Guterres 2024).

cooperation with assistance to non-White populations abroad (Baker 2015; Evers and Schaaf 2024; Mutz, Mansfield, and Kim 2021).

President Donald Trump articulated this logic when announcing the U.S. withdrawal from the COP21 agreement, characterizing international climate agreements as wealth redistribution schemes benefiting developing countries at the expense of the U.S. (Trump 2017). Trump's rhetoric emphasizes national interest through racialized assumptions, particularly when "developing countries" are depicted as undeserving beneficiaries.

This rhetorical tactic, framing international climate agreements as unfair transfers to undeserving out-groups, illustrates how nationalist appeals can be racially coded, especially when developing countries are implicitly associated with non-White populations. In turn, even subtle racial cues can activate group-based evaluations, leading racially resentful individuals to oppose policies they perceive as helping racial out-groups (Hurwitz and Peffley 2005; Valentino, Hutchings, and White 2002). This mechanism may help explain why some members of the public, particularly those high in racial resentment, resist international climate action framed as benefiting other nations perceived as undeserving.

While nationalism and racial resentment are conceptually distinct, they may interact. Nationalist rhetoric can draw on racialized perceptions of foreign populations and countries, making race a factor in the rejection of international cooperation. Additionally, while opposition to international cooperation can be rooted in either racial resentment or nationalist ideology, I argue these pathways are somewhat distinct. Nationalism emphasizes cost-benefit calculations rooted in country-first thinking (Bonikowski and DiMaggio 2016) and nationalists worldwide have been shown to dislike climate policy because they perceive it as a product of international coordination and an imposition of foreign elites (Kulin, Johansson Sevä, and Dunlap 2021). In contrast, racial resentment is based on symbolic concerns related to group-based hierarchies and perceived undeservingness of out-groups (Davis and Wilson 2021; Kam and Burge 2018).⁴

As a result, White Americans high in racial resentment may oppose international climate policy not simply because it is international, but because they perceive it as disproportionately benefiting racial out-groups they deem undeserving. While nationalist opposition reflects concerns about national interest and sovereignty, racial resentment is rooted in concern about distribution of material resources to an out-group. Recognizing this distinction is useful to understand when and why global climate initiatives provoke public backlash and which segments of the population are most responsive to racially charged framing of international cooperation.

4. In Appendix Section A.2.7, I explore nationalism as an alternative explanation and find little evidence that it moderates the effect of out-group cues on support for climate agreements. This suggests that racial resentment, rather than nationalist sentiment, drive the observed treatment effects.

2.3 Pathways through which racial resentment influences climate beliefs

In emphasizing the role of racial resentment in shaping public support for climate policy, I build on a small but growing body of research in environmental politics that identifies the election of Barack Obama as a turning point. Since his presidency, White Americans high in racial resentment have shown reduced support for climate action (e.g., Benegal 2018). Benegal (2018) finds that after Obama's election, people with higher levels of racial resentment were less likely to believe that global warming is occurring. One explanation is that Republican elites opposing climate policy explicitly linked climate action to Obama, thereby racializing the issue (Benegal 2018, 738–739).

However, a broader theoretical perspective is needed; if the spillover of racialization stems entirely from negative opinions about Obama, we might expect its influence on the relationship between racial resentment and climate attitudes to have diminished over time since he left office. This suggests the need for a deeper investigation into the mechanisms linking racial resentment to climate opinion.

One possible explanation for the persistent link between racial resentment and lower support for climate action, across both time and policy types, is that feelings of racial resentment capture beliefs about perceived distributional fairness and group deservingness. In making this argument, I build on work by Davis and Wilson (2021) who argue that racial resentment, rather than merely being an explicit measure of prejudice towards Black Americans, is rooted in perceptions of distributional fairness and a belief that non-Whites are unfairly receiving policy benefits.⁵ Elements of racial resentment are likely to be activated when racially resentful Whites consider the distributional effects of environmental justice policies.

Racially resentful White Americans are less likely to support climate action that they perceive is likely to benefit a group they disfavor (i.e., people of color) or help a disfavored group avoid disproportionate harm (Chanin 2018). To explain how these perceptions translate into political attitudes, I extend beyond the Obama spillover effect (Benegal 2018), and formalize two psychological pathways through which racial resentment may shape reactions to climate policy through distributional concerns: *out-group benefit framing* and *out-group harm framing*. Out-group benefit frames emphasize material gain by marginalized groups; out-group harm frames emphasize concern for their suffering. These two pathways help clarify how perceptions of who benefits from or is harmed by climate policy, when viewed through a racial lens, can shape public support for climate policy.

The first pathway, *out-group benefit framing*, which highlights potential policy benefits for

5. See also Kam and Burge (2018), who argue that the racial resentment scale combines racial prejudice with beliefs about the causes of racial inequality, whether such inequality is due to structural barriers or individual shortcomings.

people of color, activates zero-sum thinking and perceived status threat among Whites high in racial resentment. This is consistent with group position theory (Blumer 1958) and a broader literature demonstrating that Whites high in racial resentment respond negatively to policies they perceive as redistributive or preferential toward racial out-groups (Jardina 2019; Tesler 2016).⁶ In the context of climate policy, messages that emphasize investments in marginalized communities or racial equity can lead some individuals to interpret these efforts as advancing non-Whites at the expense of their own group.⁷

For those who are high in racial resentment and predisposed to oppose policies that may benefit non-White Americans, the elite rhetoric and proposed policies may act to reduce their support of climate policy. Thus, racially resentful individuals are less likely to favor climate policies which they perceive as benefiting non-Whites.

The pro-climate action messaging of Democratic politicians often explicitly emphasizes racial equity and environmental justice (e.g., Coleman 2019). Examples of this type of framing include policies like the Inflation Reduction Act (IRA), which include \$60 Billion to address the unequal impacts of a changing climate on communities of color (Friedman and Plumer 2022; Senate Democrats 2022). Former President Biden additionally pledged to focus on environmental justice and address environmental inequality through his administration's Justice40 initiative, which promises that "40% of the federal government's investments in climate and clean energy will go to disadvantaged communities" (Tollefson 2022). When climate policy is framed as benefiting marginalized racial groups, people with high racial resentment may perceive climate spending as an unjust redistribution of resources based on group identity. Thus, such frames can heighten zero-sum thinking by implying that out-groups are prioritized over in-groups, triggering status threat in racially resentful individuals.

The second pathway, *out-group harm framing*, suggests that drawing attention to the disproportionate harms that climate change inflicts on people of color may reduce support for climate action among racially resentful Whites by failing to elicit empathy.⁸ While such frames aim to highlight environmental injustice and promote solidarity, prior research shows that empathy is often constrained by racial boundaries (Cikara, Bruneau, and Saxe 2011).

Among those high in racial resentment, information about the suffering of people of color may not trigger concern and may even reduce support if respondents see climate harms as primarily affecting an out-group. White Americans may perceive relatively lower personal risk

6. See also DeSante (2013) who finds that opposition to policies perceived as benefiting marginalized groups, is driven not only by ideological worldviews but also by underlying racial biases (DeSante 2013, 355).

7. See Bullard and Johnson (2009) for an overview of the history and framing of environmental justice activism.

8. Scholars studying the differential effects of climate change and broader environmental impacts have found consistent evidence that Black Americans are more negatively impacted by the changing climate than White Americans (Bullard 2018).

from climate change and view people of color as bearing the brunt of its effects (Chanin 2018), reducing the perceived urgency or fairness of such policies.⁹

In this case, rather than increasing urgency, the framework of racial harm can make the problem more distant and less compelling, an important consideration in climate risk perceptions (Van der Linden 2015).¹⁰ Elite messaging also helps to make these distributional implications more salient and politically charged.¹¹ Racially resentful Whites who are less concerned with harms to non-Whites may update their preferences for climate policy accordingly. Thus, instead of increasing support among White Americans, such framing may reinforce perceptions that climate action is not about shared risk but about group competition, dampening enthusiasm among those predisposed to racialized group threat (Jardina 2019).

In sum, I propose that racial resentment shapes climate policy attitudes through two mechanisms that mirror different psychological responses: out-group benefit frames activate racial threat and resistance to redistribution, while out-group harm frames fail to generate cross-racial empathy and may even backfire. These mechanisms help explain how racially resentful Whites interpret climate policy in the context of race-based distributional concerns. Given the growing emphasis on environmental justice in legislation like the Inflation Reduction Act (IRA) and in public discourse, where policymakers highlight environmental racism (i.e., disproportionate harm to people of color) and equity-focused initiatives (i.e., benefits for marginalized communities), racially resentful individuals are likely to perceive such efforts as unfair group-based favoritism.

As a result, they may see non-White beneficiaries of climate policy as undeserving of support, reducing their willingness to back such policies. This theory builds directly on previous work (e.g., Benegal 2018; Benegal and Holman 2021; Chanin 2018) by specifying not only that racial resentment matters, but also how it operates, shaping perceptions of distributional effects expressed through these two related mechanisms. Importantly, these mechanisms can shape attitudes toward both domestic and international climate action.

The above discussion leads to a hypothesis on the linkage between racial resentment and climate opinion, establishing that racial resentment moderates attitudes on both international

9. See for example, results from the Yale Program on Climate Change Communication which found that 49% of Americans believe that climate change harms some groups in the U.S. more than others and 32% answering a follow-up that “people of color are more harmed than White people” (Carman et al. 2023, 5).

10. This logic is reflected in real-world policy decisions, such as the EPA’s move during the second Trump administration to eliminate “diversity, equity, and inclusion” programs, including environmental justice initiatives designed to protect communities of color from environmental harm (Randolph and Trotta 2025). This suggests that for some political actors reducing harms to non-White communities is not only a low priority but actively opposed, consistent with the predicted effects of out-group harm framing.

11. These perceptions may arise from a variety of sources, including informational awareness, policy implementation, media coverage, social media discourse, or exposure to elite cues but regardless of their origin, they can shape attitudes by influencing how individuals perceive beneficiaries of climate policy.

and domestic climate policy.

H1: *Racial Resentment*: Individuals exhibiting higher levels of racial resentment will indicate **lower** probability of support for both international and domestic climate action.

The above discussion suggests two possible mechanisms through which racial resentment could translate into lower climate approval among White Americans, either perceived favoritism towards an out-group (benefit), or hostility towards an out-group (harm). Experimental evidence is essential to unpack these mechanisms. The experimental results serve to disentangle these two mechanisms by priming information on the distributional effects of the policy. Identifying which mechanism more closely links racial resentment to climate opposition can inform how to frame climate policy to avoid backlash among Whites.

Therefore, several hypotheses are testable using experimental data that vary exposure to information that people of color disproportionately suffer from the effects of climate change (harm), that climate action is explicitly designed to benefit people of color (benefit), or no additional information (control). Because racialized cues can activate even latent or unexpressed forms of racial resentment due to White in-group attachment, I expect average negative responses to out-group frames among White Americans, with stronger effects among those high in racial resentment. These pre-registered hypotheses¹² concern the negative effects of the treatment conditions at reducing support for climate action (regardless of scope) relative to a control condition:

H2a: *Out-group benefit*: White respondents will be **less** likely to support domestic and international climate action that is framed as benefiting people of color relative to the control group.

Secondly, I expect that White respondents will react to receiving information that non-White people are more negatively harmed by the changing climate than White people by reducing their support for the hypothetical climate action. Here I anticipate that Whites will be less likely to support climate action after learning that an out-group (people of color) are the most negatively impacted by climate change.

H2b: *Out-group harm*: White respondents will be **less** likely to support domestic and international climate action that is framed as addressing harm to non-White people relative to the control group.

As the *Frame* treatment is designed to signal perceptions concerning race-based competition for resources in both treatment conditions, I anticipate that the negative effect of the *harm*

12. I pre-registered prior to data collection on the OSF registry https://osf.io/sq269?view_only=78b8dba047c8415782ce76d6df82aa43. Note that I renumbered the hypotheses relative to the pre-analysis plan for presentational reasons.

and *benefit* frame will be stronger among individuals with higher levels of racial resentment compared to individuals reporting lower levels of racial resentment.

In particular, I anticipate that the *harm* condition, which emphasizes that people of color are the group that is most negatively impacted by the changing climate, will activate apathy for communities of color driving down climate support among high racial resentment respondents. **H3: Racial Resentment Framing:** The effect of the *Frame* conditions relative to the control will be more **negative** for individuals exhibiting higher levels of racial resentment compared to those with lower levels of racial resentment.

3 Correlational Data

3.1 Data source: CES

Throughout this section of the paper, I rely on data from the 2020 Cooperative Election Study (CES) (Ansolabehere, Schaffner, and Luks 2021).¹³ The 2020 CES surveyed 61,000 Americans, was conducted online and is designed to be representative of national adults (Ansolabehere, Schaffner, and Luks 2021, 13).¹⁴ Notably, as the target of my analysis is White Americans, I restrict my analysis to those who identify as non-Hispanic Whites (total $n=43,112$).¹⁵

To create the racial resentment index, I rely on two questions from the CES where respondents were asked if they agree or disagree with the statements listed in Table A2.¹⁶

After re-coding the questions so that higher values represented increased levels of racial resentment, I then followed Tesler (2012) and re-scaled the two questions by coding each response from 0 to 4 in 1 point increments (where 2 is neutral) then summing and dividing the total by 8 (the number of questions multiplied by the increments) to create an index ranging from 0 (minimum racial resentment) to 1 (maximum racial resentment). The full distribution across respondents is shown in Figure 1.

For the two primary dependent variables, respondents were asked if they either supported or opposed the following decisions listed in Table A3. Crucially, the CES survey included ques-

13. The 2020 CES is useful because it includes questions on both the real-world Clean Power Plan (CPP) and U.S. withdrawal from the Paris Agreement, mirroring the domestic and international distinction I test experimentally. Additional analysis using CES waves from 2016 Table A13 and 2018 Table A14 yield substantively similar results.

14. For a breakdown of the CES sample, see Section A.1.

15. Note that respondents were not required to answer every question so the number of responses on any given question may be lower.

16. I chose to use these two questions as they are the available questions from the four traditional racial resentment questions used in the historic battery (Kinder and Sanders 1996). See Table A6 for a confirmatory factor analysis and for examples of other work using same battery see Benegal and Holman (2021) and Morris (2023). The main results are robust to the inclusion of additional questions designed to measure racial attitudes. See Section A.1.2.

tions about both domestic and international climate action enabling a test of **H1**: *Racial Resentment*.¹⁷

I re-coded each of the dichotomous dependent variables so that a value of 1 represents the respondent approving of the climate action policy and a value of 0 represents the respondent opposing the climate action policy. Overall, 61.05% of respondents opposed withdrawing the U.S. from the Paris climate agreement and 63.65% of the CPP.

I employed logistical (logit) regression to analyze the models of interest. I also estimate all models with several control variables that could plausibly influence the dispersion of the racial resentment variable and views of climate change policy. I follow Stephens-Dougan (2020, 100) in including controls for education, political ideology, partisanship (with leaners included), income, gender, age, and region.¹⁸ As I seek to establish that feelings of racial resentment influence approval of climate action in a separate pathway, I also include control variables for political ideology and partisanship.¹⁹

3.2 CES: results

In Figure 1, I visualize that respondents with higher levels of racial resentment have lower levels of support for climate action, presenting a band of climate support with a 95% confidence interval. This is a test of **H1**: *Racial Resentment* which suggests that increased feelings of racial resentment will be associated with a reduction in the probability of support for climate policy. Predicted probabilities are estimated across the full range of racial resentment, with other variables held at modal values and indicate that for both climate policies, as the level of racial resentment increases towards the maximum value of 1.00, the likelihood of supporting the climate action decreases.

Respondents with higher levels of racial resentment, controlling for other demographic and political factors, have lower support for both a domestic climate policy (CPP), and an international climate agreement (the Paris Agreement). Both of these declines are statistically significant at the ($p < 0.000$) level and substantively large. The predicted probability of support for the Paris Agreement in the average case declines from 0.951 95% CI [0.958, 0.942] at a racial resentment level of 0.00 (minimum) to 0.472 95% CI [0.508, 0.437] at a racial resentment level of 1.00 (maximum) a 47.8 percentage point decline in support; the predicted probability of support for CPP similarly declines from 0.839 95% CI [0.856, 0.821] to 0.409

17. The Pearson correlation between the two dependent variables is 0.52 ($p < 0.000$) which suggests variation between the two questions.

18. A description of those variables are available in the appendix. See Section A.1.

19. While unmeasured confounders may remain, analysis of the sensitivity of the estimates to omitted variable bias per the procedures in (Cinelli and Hazlett 2020) indicates that even an extreme confounder larger in magnitude than partisanship would be unlikely to overturn the results.

95% CI [0.438, 0.381], a 43.0 percentage point decline.

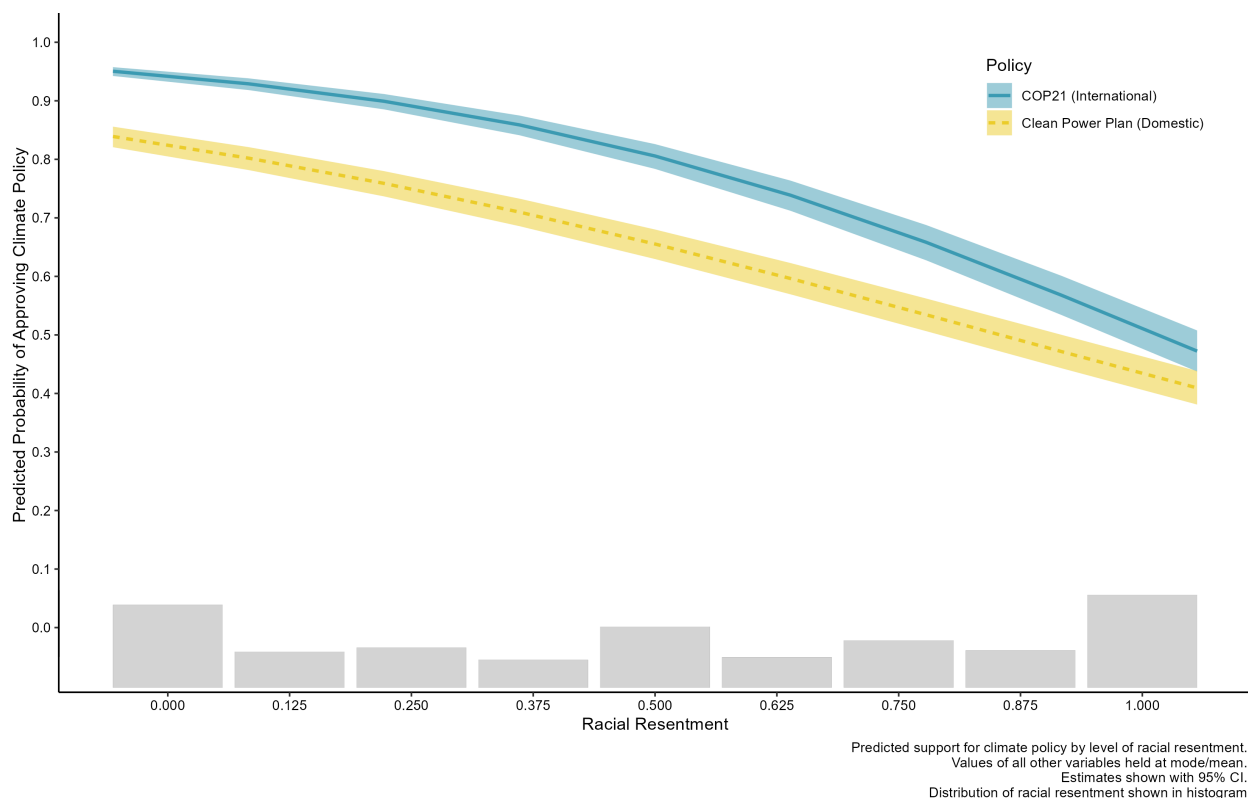


Figure 1: Effect of Racial Resentment on Climate Policy Approval

The results provide correlational evidence that racial resentment is associated with the climate preferences of Americans regardless of climate policy type (international or domestic).²⁰ These results replicate prior findings linking racial resentment to domestic climate opinion and extend them to the international context.

However, to expand on the results it is helpful to conduct an additional study leveraging an original survey. This serves as a test of a mechanism linking racial attitudes and climate opinion, perceptions of which racial group is benefiting from climate action. The experimental results provide causal leverage on the relationship between perceptions of out-groups benefiting from climate policy and climate opinion.

Additionally, it is possible that the COP21 agreement, which is connected to U.S. domestic industry and concerns about a transition away from the coal industry (Hermwille and Sanderink 2019) could have been opposed by racially resentful Whites not as an exclusively

20. In Table A8 and Table A10 I conduct a variety of robustness checks of the main results; including alternative specifications of the dependent (concerning hypothetical climate proposals) and independent variables (“color-blind” questions which do not explicitly refer to Black Americans and thus attempt to tap into other elements of racial prejudice).

international climate policy but rather due to the perceived domestic effects.²¹ To further allay these concerns the experimental findings allow for a clear distinction by leveraging hypothetical international and domestic climate policies.

4 Study 2: The Effect of Out-Group Racial Cues on Support for Climate Policy

Next, using a survey experiment, I test a pivotal role for cues on the racial distribution of climate benefits in influencing White Americans' support for both domestic and international efforts to address climate change. I provide experimental evidence of the linkage between perceptions that non-Whites are benefiting from climate policy and lower support for climate action among Whites. This suggests that racialized framing may reduce support for climate policy among White Americans.

4.1 Study design

I conducted the study with an overall sample of 1,500 American adults in Spring 2023. The results were gathered by Qualtrics and while not strictly representative of the American public as a whole included quotas on gender, age, race, income, and level of education.²² I then restricted analysis to only respondents who identified as White. This resulted in a sample size of 1,157 White respondents. The experimental design is summarized in Figure 2 below.

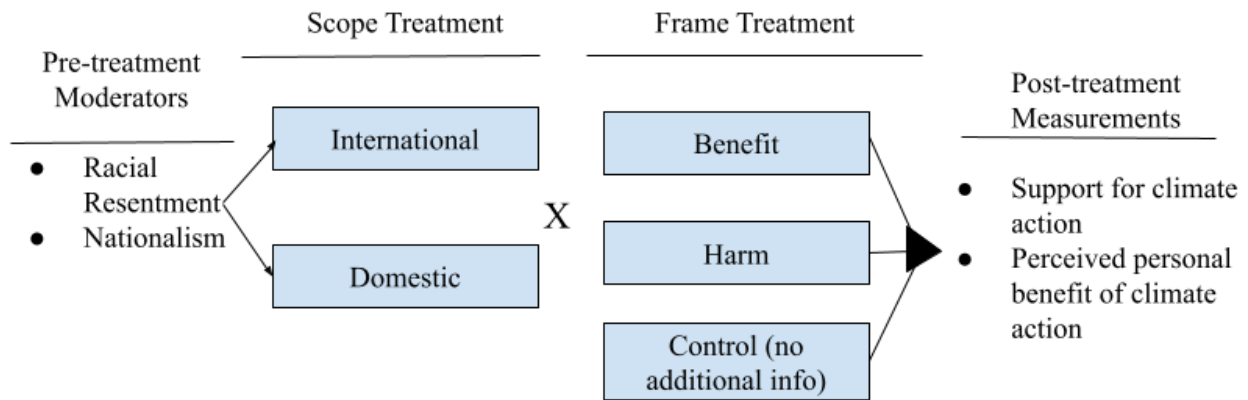


Figure 2: Experimental design

21. See also Table A11 for an industry-based analysis which finds the results are robust to the inclusion of additional variables measuring material interest.

22. See Coppock and McClellan (2019) for discussion of the validity of social science research conducted via online convenience samples like Qualtrics.

Before treatment, all respondents answered a series of questions designed to measure their existing level of racial resentment and nationalism (two potential moderators), along with a series of demographic questions including partisanship. The respondents then viewed a preamble that differs slightly depending on which scope condition (international agreement or domestic policy) they were randomly assigned into.²³ After the preamble, the respondents viewed one of six different treatment conditions concerning the hypothetical [agreement/policy]. The scope treatment randomly presents respondents with information on either a domestic climate policy or an international climate agreement. The frame treatment randomized between a cue presenting either information that people of color (non-Whites) are harmed by climate change (Harm Frame), or that people of color (non-Whites) specifically benefit from the climate action (Benefit Frame).

It is possible that sophisticated or highly informed respondents regarded the international agreement vignette as somewhat unrealistic or under-specified.²⁴ That abstraction, however, was intentional. The primary objective of the experiment was not to replicate a specific policy, but rather to isolate responses to racialized cues, a useful approach when the causal question centers on framing effects rather than institutional design.²⁵ Furthermore, recent climate diplomacy offers plausible analogs, e.g., the UN’s Green Climate Fund, established to channel financial contributions towards helping developing countries mitigate emissions, and the Loss and Damage Fund negotiated at COP27, which aims to improve “resilience amongst the most vulnerable” (UNCC 2022). The framing of these initiatives foregrounds distributional questions that parallel the frame of the experiment. Thus, although stylized, the experimental frame reflects real-world narratives around international climate finance and aid.

The design therefore leverages two pathways through which racial resentment can shape climate attitudes. First, harm-based information reminds respondents that people of color are disproportionately hurt by climate change; Whites may discount action that primarily shields an out-group. Second, benefit-based information highlights that contemporary policies, such as the Inflation Reduction Act’s environmental justice provisions, expressly direct resources to those same communities. The harm and benefit treatments reflect salient aspects of real-world discourse, whereas the control omits any racial content.

An example of the manipulation (in this case *International* and *Harm*) presented to respondents is shown in Figure 3.

23. See Section A.2.3 for wording.

24. Because I did not pre-register scope-specific expectations, results are presented pooled across domestic and international frames; the scope-split estimates are reported in Section A.2.6.

25. See Brutger et al. 2023, which tests the effect of labeling a survey scenario as hypothetical versus real, finding few tradeoffs.

The U.S. Congress is debating approving a new international climate agreement. The agreement is between the United States and a number of other countries around the world. The purpose of the agreement is to help the member countries slow down the global effects of climate change.

Researchers studying the effects of climate change have found consistent evidence that non-white people are more negatively harmed by the changing climate than white people.

Figure 3: An example of how respondents learned about fictional agreement/policy.

After viewing the manipulation, respondents were asked to what extent do they support the proposed [policy/agreement] on a scale ranging from 0 (Strongly oppose) to 4 (Strongly support), along with a manipulation check designed to measure the effectiveness of the treatment.²⁶

4.2 Effect of framing on respondent support for climate action

To investigate **H2a: Out-group benefit** and **H2b: Out-group harm** I ran an ordinary least squares (OLS) model regressing support for climate action on treatment assignment. As a reminder, each respondent was randomly assigned to one of three *Frame* conditions; *benefit* which included additional information that non-White people will benefit from the hypothetical climate [policy/agreement], *harm* which included information that non-White people are the group that is most harmed by climate change, and a *control* condition which did not see any additional information.

In Figure 4, I present the marginal and substantive effects with 95% confidence interval for the treatment conditions compared to the *control* condition. Across the two conditions, I find substantive and statistically significant negative treatment effects. Compared to the control condition support for the climate action is lower in both the *benefit* condition (-0.362, $p < 0.001$) and the *harm* condition (-0.285, $p = 0.003$).

On a substantive level, this is equal to a drop in support for the climate policy on the 0-4 point scale from 2.63 95% CI [2.50, 2.76] in the control condition to 2.27 95% CI [2.14, 2.39] in the *benefit* condition and 2.34 95% CI [2.21, 2.48] in the *harm* condition. Additionally,

26. The wording of the dependent variable question and manipulation check is in Appendix B.3. Respondents who received the *benefit* treatment answered that “non-Whites” are the group that most benefit at significantly ($p < 0.000$) higher rates (23 percentage points higher) than those in the control. Additionally, those who received the *harm* treatment answered that that “non-Whites” are the group most negatively impacted by climate change at significantly ($p < 0.000$), 22 percentage points higher, higher rates than those in the control.

compared to those in the control, the percentage of respondents supporting the climate action²⁷ was 13.3 95% CI [-20.3, -6.31] percentage points smaller in the *benefit* condition and 8.9 95% CI [-16.0, -1.77] percentage points lower in the *harm* condition.²⁸

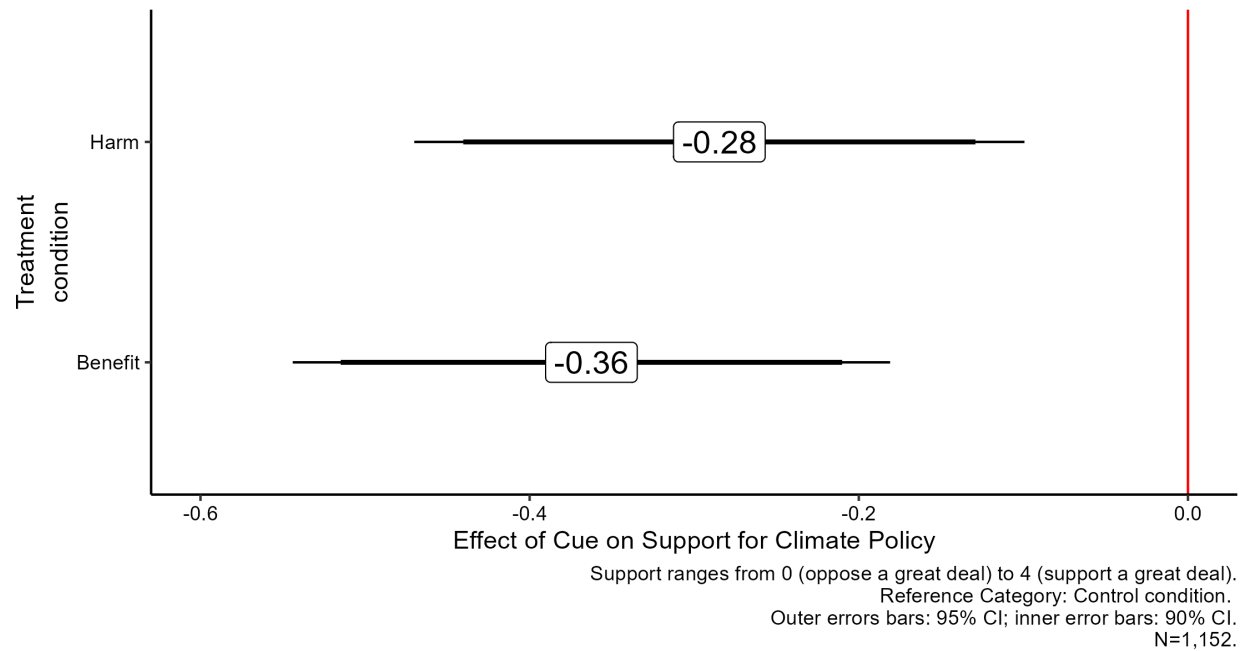


Figure 4: Effect of Cues on Support for Climate Action

Next, to investigate a possible mechanism behind the reduction in support for the climate action respondents answered “To what extent do you believe the proposed policy will help or harm people like you”? Responses were coded from 0 (Hurt a great deal) to 4 (Help a great deal). The results presented in Figure 5 again show an effect of the *benefit* cue (-0.31, $p < 0.001$) and the *harm* cue (-0.14, $p=0.098$) in reducing the perceived personal benefit of the climate action. This mechanism test shows the cues reduced perceptions of the personal benefit of the hypothetical action relative to those randomized into the *control*.

27. To report percentage changes in support I collapse the primary measure of support into a binary, with responses “Support a moderate amount” or “Support a great deal” coded as supporting the policy and all other responses as opposing.

28. While not pre-registered, I also find that respondents do appear to differentiate somewhat based on the scope of the treatment. See Figure A2.

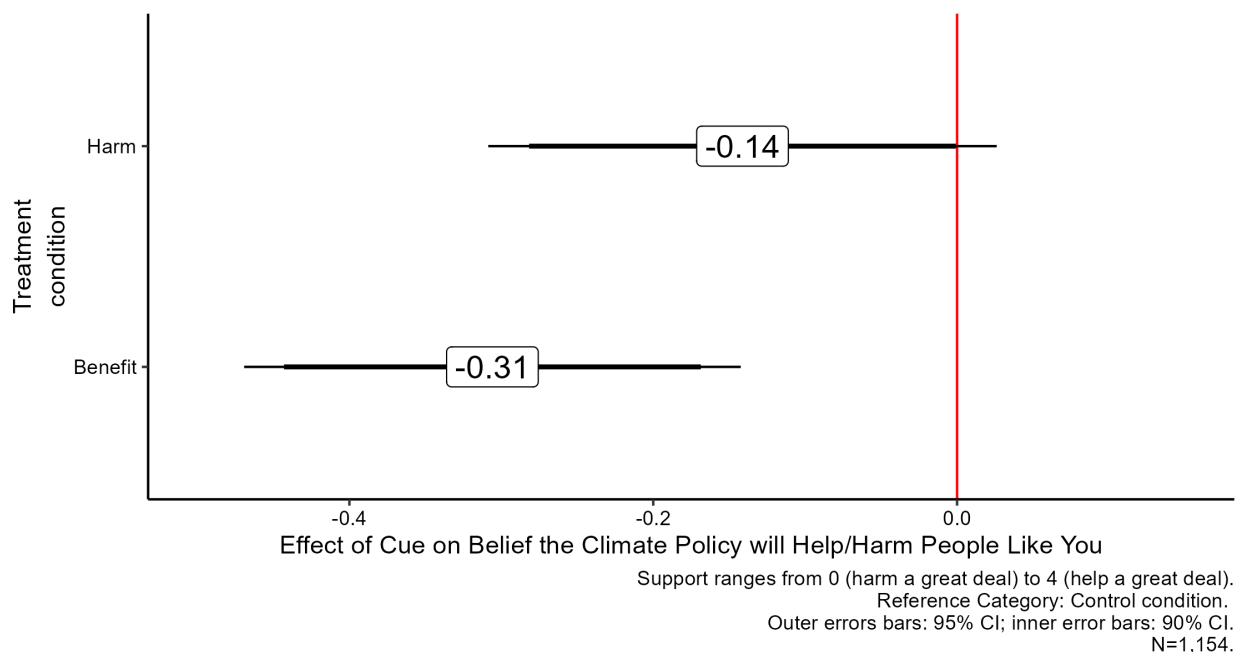


Figure 5: Effect of Cues on Perceived Personal Benefit of Climate Action

4.3 Role of racial resentment

Next, I turn to testing the conditional effects of the treatments based on a potential mediator measured pre-treatment;²⁹ respondents' level of racial resentment (H3).

In Table A15, I list the four questions that made up the index (Kinder and Sanders 1996). I constructed the 0 (minimum racial resentment) to 1 (maximum racial resentment) racial resentment scale following the standard techniques (Tesler 2012). The mean racial resentment score for respondents was 0.54.³⁰

Additionally, because respondent features may be endogenous to both the racial resentment questions and their support for climate policy I include a standard set of demographic control variables (age, gender, income, party ID, political interest, religiosity, political ideology, and education level) in the model (Jardina 2019; Stephens-Dougan 2020).

For the two *Frame* conditions, I find that respondents' who reported higher levels of racial resentment (closer to 1) reacted more negatively to the *Frame* cues, relative to those with the same level of racial resentment in the control. I show the interaction effect in Table 1. The interaction between *Frame* and racial resentment is most notable in the *harm* condition with

29. Sheagley and Clifford (2023) recommend measuring moderators pre-treatment and do not find evidence of priming effects.

30. The racial resentment index Cronbach's alpha, a measure of item reliability and internal consistency, was 0.73 indicating the index is reliable.

respondents with the highest level of racial resentment reporting a decline in support of -0.60 ($p < 0.00$), relative to respondents with the highest level of racial resentment in the control. I display results graphically for the marginal effect of the harm cue by level of racial resentment in Figure 6.³¹ While the coefficient for *HarmXRacialResentment* is statistically significant ($p = 0.03$), the coefficient for *BenefitXRacialResentment* is not ($p = 0.30$).

Table 1: Heterogeneous Effects of Treatment on Climate Policy Approval: Racial Resentment

Frame (reference= Control)	
Benefit * Racial Resentment	-0.316 (0.303)
Harm * Racial Resentment	-0.660** (0.311)
Benefit	-0.176 (0.178)
Harm	0.060 (0.185)
Racial Resentment	-1.042*** (0.230)
N	1,137
R ²	0.369
Control Variables	Yes

Coefficients reported from OLS regression model. Model includes control variables for age, gender, income, partyID, political interest, religiosity, political ideology, and education level. The dependent variable is coded on a five point scale, with four indicating support a great deal. Significance codes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$, two-tailed tests.

Notably, even at the minimum level of racial resentment, those exposed to the *benefit* condition did not increase their support for the hypothetical climate action (-0.17, $p = 0.32$), and respondents with the lowest level of racial resentment exposed to the *harm* condition reported an insignificant positive 0.06 ($p = 0.75$) increase to the same condition again relative to the control baseline.

Overall, the results suggest that in line with my expectations in **H3: Racial Resentment Framing**, respondents with higher levels of racial resentment reacted more negatively to the out-group cues than those with lower levels of racial resentment. This indicates that feelings of racial resentment moderated the effect of the informational cues increasing the negative impact of the cues relative to the control. As anticipated the largest and most significant reaction was to the *harm* condition suggesting that the two treatment conditions (*benefit* and *harm*) may work differently in reducing support for climate action.

31. In Figure 6 I present point estimates with outer error bars at 95% CI as before, and inner bars that represent 83.4% CI in order to better facilitate visual comparison of statistically significant ($p = 0.05$) differences between groups (Goldstein and Healy 1995).

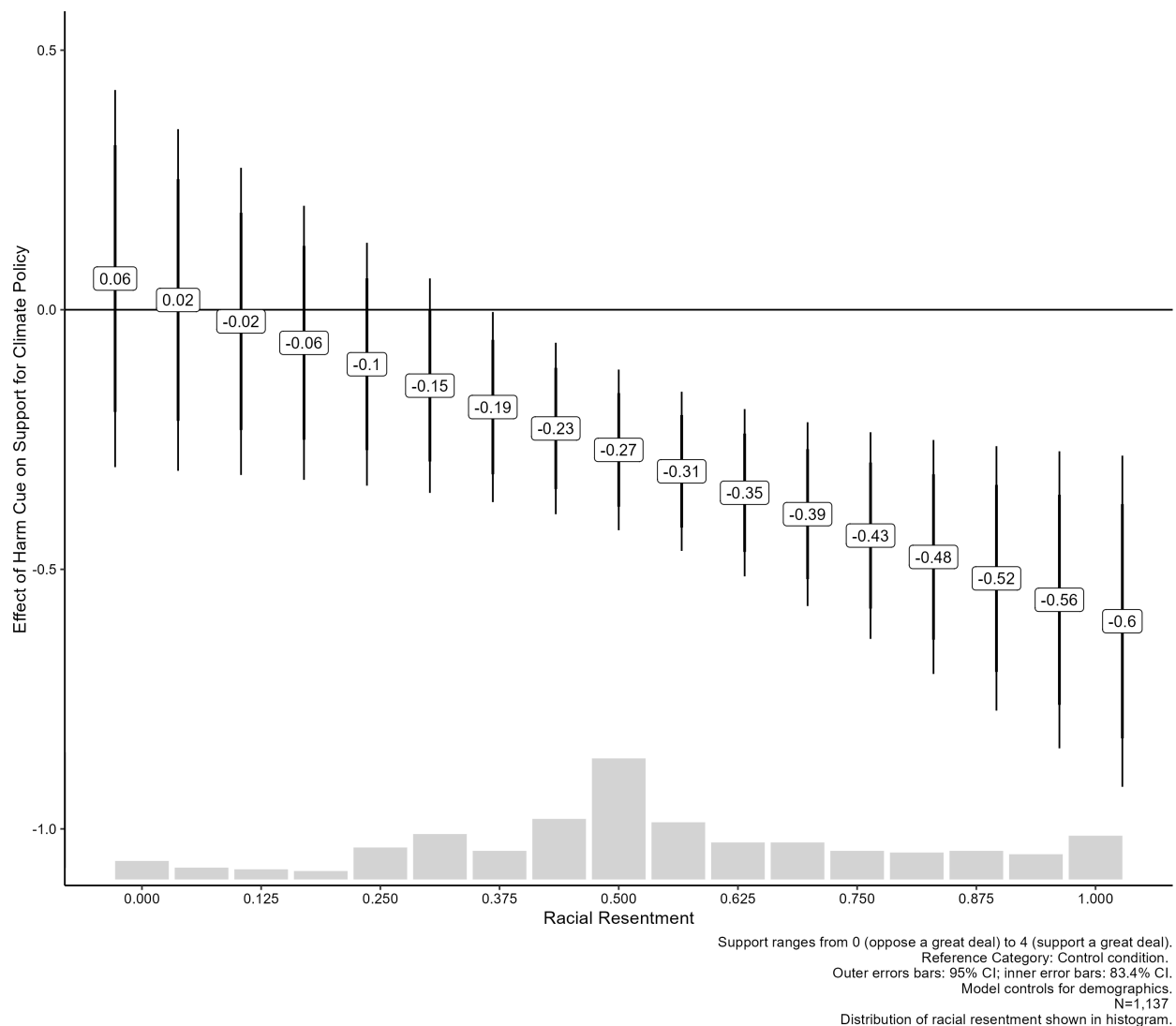


Figure 6: Effect of Harm Cue on Support for Climate Action By Level of Racial Resentment

4.4 Alternative explanation: Partisanship

I conclude by discussing an alternative explanation that could moderate the results: the respondent's party affiliation.³² I find that across the partisan spectrum higher levels of reported racial resentment are associated with lower support for climate action and that the experimental cues worked similarly. While partisanship clearly matters, I show that racial resentment and racial cues offer distinct pathways for shaping climate opinion.

I begin by returning to the CES data to investigate if the association between higher levels

32. See Section A.2.7 which investigates nationalism as an additional alternative explanation. Unlike the racial resentment results, I find little evidence that nationalism moderates the treatment effect.

of racial resentment and lower support for climate action holds across the partisan spectrum. I split the CES respondents into three groups; those who identify with the Democratic Party including leaners, self-identified political independents, and those who identify with the Republican Party again including leaners. I then re-estimate the main models of interest. The results are shown in table form in Table 2. In the CES data I find that regardless of party racial resentment has a negative and statistically significant association with reduced support for climate action.³³For Republicans, Democrats, and Independents at higher levels of racial resentment there is a markedly lower support for climate action.

Table 2: Overall Effect of Racial Resentment on Climate Policy Approval (By Party)

	Democrats		Independents		Republicans	
	COP21	CPP	COP21	CPP	COP21	CPP
Racial Resentment	-3.355*** (0.138)	-2.082*** (0.097)	-3.403*** (0.148)	-2.417*** (0.133)	-2.672*** (0.097)	-1.556*** (0.082)
N	15,172	15,182	4,022	4,035	13,391	13,397
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes

Coefficients reported from logistical regression models. Models include control variables for education, political ideology, gender, age, region, and income. The dependent variables are coded 1 if the respondent indicated support for the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Among Republicans in the average case analysis, moving from the lowest level of racial resentment to the highest is associated with a 56.8 percentage point drop in support for the Paris Agreement, and a 37.0 percentage point reduction in probability of support for the CPP.

Racial resentment also plays a role in climate support for respondents who identify as Democrats. This is perhaps more surprising because as discussed earlier, unlike Republican leaders, the Democratic party has positively elevated the importance of environmental justice. One possible explanation is that racially resentful Democrats may not be effectively cued about the positive benefits of environmental justice. This indicates a possible role for the perceived benefits to people of color to influence climate opinions even among those who ex-ante we would anticipate to hold pro-climate opinions. This possibility is further interrogated in the experimental results section below.

For Democrats in the average case analysis, moving from the lowest level of racial resentment to the highest is associated with a 20.3 percentage point drop in support for the Paris

33. In Figure A1 I visualize predicted probability plots for the association of racial resentment on climate policy approval by party affiliation, with the values of all other regressors held to their means/modes for that respective party affiliation.

Agreement, and a 22.3 percentage point reduction in probability of support for CPP. Here it is worth noting that the overall level of support for the climate policies among Democrats remains markedly higher than among Republicans or Independents.

Additionally, I find a negative association among respondents who identify as political independents with movement from the lowest to the highest level of racial resentment associated with a statistically significant decline in the average case analysis of 52.6 percentage point decline in the probability of supporting the Paris Agreement and a 48.4 percentage point reduction in the probability of supporting the CPP. I find that regardless of party affiliation higher levels of racial resentment are associated with decreased support for climate action.

Next, I consider the role of partisanship in moderating the effect of the experiment. I break out the effects of treatment conditional on the respondent's reported party affiliation (again including leaners), and find that the relative to those in the control, across the partisan spectrum respondents who saw either the *harm* and the *benefit* cues significantly reduced their support for the climate action.³⁴ This suggests that the cues worked similarly regardless of the partisanship of the respondent. These negative effects of the cues are statistically significant at the $p < 0.01$ level. I display the marginal effects broken out by party identification in Figure 7.

The experimental findings indicate that perceptions of the beneficiaries of climate policy impacted the climate opinions of respondents who ex-ante we would anticipate to have far more positive perceptions of climate policy (Democrats). Similarly, Republicans had a negative reaction to the cues reducing their support for climate action. Additionally, support for climate policy among Democrats remained substantively higher than among Republicans, with Democrats in both cue conditions (2.79 in the benefit condition and 2.82 in harm) expressing a higher level of support than Republicans in the control group (2.33).

34. Due to differences in question wording after combining partisans and leaners results for pure independents were not available in the experimental results. The results are similar among pure partisans.

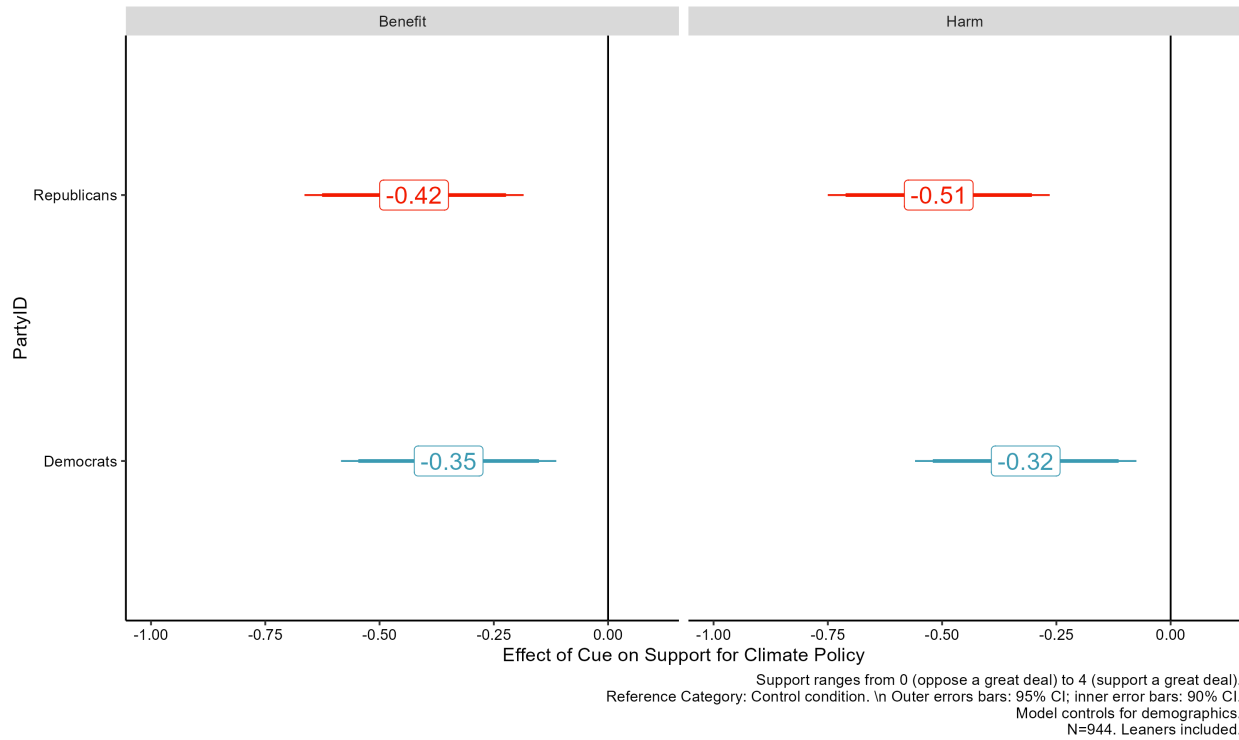


Figure 7: Effect of Cue on Support for Climate Action by Party ID

Although experiments enjoy many advantages, a key limitation of this experiment is the hypothetical and stylized nature of the climate policy vignettes, particularly the international agreement scenario. These vignettes were designed not to mirror specific institutional processes, but to isolate psychological responses to racialized framing and test the mechanisms underlying the effect of racial resentment.

The cues provide a direct manipulation of the perceived beneficiaries of climate policy or which groups are most harmed by the changing climate, leveraging salient aspects of the environmental justice movement. While this abstraction limits external validity for those highly informed about climate negotiations, it is consistent with established approaches in the experimental literature that aim to isolate attitudinal mechanisms, in this case receptivity to distributional cues. However, ambiguity around terms such as “benefit” and the absence of details on policy implementation, particularly in the international vignette, may reduce interpretability for some sophisticated respondents. The existing results should be best understood as suggestive evidence of the role racial resentment may play when international climate action is framed in explicitly racialized terms, not as a forecast of how real-world agreements would be received.

Future research could incorporate more realistic policy-specific scenarios to assess how

racial cues interact with features of actual climate agreements, such as climate finance or loss-and-damage commitments. This would contribute meaningfully to the broader study of public support for international climate policy.

5 Discussion

This paper advances understanding of the linkage between racial resentment, out-group cues and climate opinion among White Americans. The data provide compelling evidence for a persistently negative effect of respondents' feelings of racial resentment at predicting support for White Americans' approval of both international and domestic climate action. First, in correlational data from the CES, I find that respondents with higher levels of racial resentment are less supportive of action to address climate change. These effects persist across party lines, Democrats, independents, and Republicans with higher levels of racial resentment exhibit a lower propensity to support climate policies.

Second, in a survey experiment, I find that White Americans respond to information that non-Whites are the desired beneficiaries of climate action (*benefit*) or that non-Whites are the most harmed by negative climate impacts (*harm*) by reducing their support for climate action relative to those in the *control* condition. Thus, shedding light on mechanisms through which higher levels of racial resentment translates to lower support for climate action.

Furthermore, information on non-White beneficiaries of climate action (*benefit*) has the most consistently negative impact on Whites' support for the climate policy across both international and domestic climate action. Using an additional question on beliefs about the impact of the proposed climate action, I found that relative to those in the *control* condition, respondents exposed to treatment cues had a lower belief that the policy will help people like them.

Furthermore, I find the strongest negative impact of the cues among respondents with the highest levels of racial resentment. In particular, among racially resentful Whites, learning that people of color are the group most harmed by climate change had the largest negative effect. This suggests something of a dichotomy where among the overall sample, learning about the non-White beneficiaries of climate action had the largest negative effect, however, among racially resentful Whites learning that people of color are the most harmed by the changing climate resulted in the steepest decline in support for climate action. This may suggest that racial resentment is not only capturing feelings of individualism and classical conservatism but also feelings of discrimination and negative out-group affect that results in a lack of support for policies framed as addressing harm to people of color. Future work can do more to disentangle these aspects of racial resentment as a moderator for climate opinions.

Additionally, I did not find evidence that nationalism moderated the effect of the treatment; individuals with higher levels of nationalism did not respond to the cues more strongly than individuals with lower levels of nationalism. Although the specific institutional details of such agreements are necessarily stylized in this experiment, the findings point to a broader psychological dynamic in which considerations of racial groups shape willingness to engage in international cooperation.

This work contributes to an emerging literature that has found that climate policies framed as highlighting the benefits to racial minorities (English and Kalla 2021) or as pursuing social justice policies (Marshall et al. 2024) are less popular among White Americans. Taken as part of this literature, these results have important implications for the study of American public opinion in the context of foreign policy issues and for scholars and policymakers wishing to better understand the conditions under which members of the American public are more or less likely to support action to address climate change.

It is possible that combining climate action with broader social justice goals or an explicitly racialized framing may carry with it a political cost among White Americans. This matters because politicians on both sides of the political aisle can choose to frame climate policy as racial and lead to an activation of racial resentment. These findings demonstrate that racial attitudes and cues play a key role in shaping climate policy support among White Americans. Understanding how these attitudes vary is essential for designing strategies that build broader support for climate mitigation policies, particularly those that aim to benefit all Americans, including communities of color.

Finally, while this paper focuses on White Americans, future research should also examine how racialized climate framing affects support among non-White Americans. Communities of color are not ideologically uniform, and reactions to environmental justice messaging may differ by group and context. Some may respond positively to frames emphasizing racial equity, while others may view such framing as divisive. Exploring this variation is essential for ensuring a more complete understanding of public opinion and for developing strategies to build broader, multiracial coalitions for climate action.

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A Study 1: Correlational Results

A.1 CES information

Table A1: Survey Demographic Information

Variable	Value	n	Percentage
Education	Advanced Degree	6294	14.60
Education	Bachelor's degree	10097	23.40
Education	Associate degree	4320	10.00
Education	Some college	8913	20.70
Education	High school graduate	12214	28.30
Education	No high school	1274	3.00
Gender	Female	24168	56.10
Gender	Male	18944	43.90
Income	More than \$150,000	3522	9.10
Income	\$100,000–\$149,999	5539	14.20
Income	\$60,000–\$99,999	13249	34.10
Income	\$30,000–\$59,999	7520	19.30
Income	Up to \$29,999	9053	23.30
Party	Independent	5912	14.10
Party	Democrat	18782	44.90
Party	Republican	17123	40.90
Political Ideology	Conservative	15642	38.30
Political Ideology	Middle of the Road	9947	24.30
Political Ideology	Liberal	15274	37.40
Race	White	43112	100.00
Region	Midwest	10972	25.40
Region	Northeast	8554	19.80
Region	South	15668	36.30
Region	West	7918	18.40
Age	Mean Value	50.4	

Table A2: Racial resentment questions: Independent Variable

Variable	Wording
RR_nofavors	Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors. [REVERSE CODED]
RR_slavery	Generations of slavery and discrimination have created conditions that make it difficult for Blacks to work their way out of the lower class.

Table A3: Dependent Variables

Scope	Variable	Wording
International	climate_COP	For each of the following tell us whether you support or oppose these decisions...Withdraw the United States from the Paris Climate Agreement
Domestic	climate_CPP	For each of the following tell us whether you support or oppose these decisions...Repeal the Clean Power Plant Rules (the Clean Power Plant rules would require power plants to cut greenhouse gas emissions by 32 percent by 2030)

Table A4: Overall Effect of Racial Resentment on Climate Policy Approval: With Controls Shown

	COP21	CPP
Racial Resentment	−3.066*** (0.068)	−2.018*** (0.056)
Education (reference= Associate degree)		
Advanced Degree	0.075 (0.076)	0.219*** (0.059)
Bachelor's degree	0.035 (0.066)	0.202*** (0.052)
Some college	−0.075 (0.066)	0.090* (0.052)
High school graduate	0.058 (0.062)	−0.126*** (0.049)
No high school	0.200* (0.121)	−0.264*** (0.099)
Gender (reference= Female)		
Male	−0.494*** (0.036)	−0.098*** (0.029)
Region (reference= Midwest)		
Northeast	−0.033 (0.052)	−0.067 (0.041)
South	−0.044 (0.045)	−0.038 (0.036)
West	−0.097* (0.055)	−0.001 (0.043)
Income	−0.018*** (0.006)	0.007 (0.005)
Age	−0.007*** (0.001)	−0.0003 (0.001)
Political Ideology (reference= Moderate)		
Liberal	0.493*** (0.061)	0.569*** (0.047)
Conservative	−1.123*** (0.043)	−0.441*** (0.039)
Political Party (leaners inc.) (reference= Independent)		
Democrat	1.238*** (0.058)	0.395*** (0.049)
Republican	−0.688*** (0.049)	−0.341*** (0.045)
Constant	3.305*** (0.107)	1.823*** (0.086)
N	32,585	32,614
Log Likelihood	−10,700.500	−15,895.960
AIC	21,435.000	31,825.920

Coefficients reported from logit regression models. The dependent variables are coded 1 if the respondent indicated support for the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Table A5: Overall Effect of Racial Resentment on Climate Policy Approval (By Party leaners inc.): With Controls Shown

	Democrats		Independents		Republicans	
	COP21	CPP	COP21	CPP	COP21	CPP
Racial Resentment	-3.355*** (0.138)	-2.082*** (0.097)	-3.403*** (0.148)	-2.417*** (0.133)	-2.672*** (0.097)	-1.556*** (0.082)
Education (reference= Associate degree)						
Advanced Degree	0.252 (0.181)	0.644*** (0.118)	0.145 (0.166)	0.192 (0.152)	-0.004 (0.103)	0.013 (0.079)
Bachelor's degree	-0.056 (0.153)	0.430*** (0.102)	0.362** (0.149)	0.372*** (0.137)	-0.025 (0.087)	0.077 (0.068)
Some college	-0.025 (0.152)	0.156 (0.100)	0.052 (0.147)	0.189 (0.135)	-0.135 (0.088)	0.049 (0.067)
High school graduate	-0.556*** (0.140)	-0.400*** (0.092)	0.295** (0.139)	-0.112 (0.128)	0.217*** (0.081)	0.029 (0.063)
No high school	-0.748*** (0.256)	-0.461** (0.183)	0.550* (0.307)	-0.444 (0.271)	0.380*** (0.146)	-0.118 (0.124)
Gender (reference= Female)						
Male	-0.110 (0.080)	0.197*** (0.056)	-0.491*** (0.081)	-0.165** (0.076)	-0.605*** (0.049)	-0.199*** (0.038)
Region (reference= Midwest)						
Northeast	-0.113 (0.108)	-0.186** (0.075)	-0.134 (0.116)	-0.127 (0.107)	0.032 (0.071)	0.018 (0.057)
South	-0.082 (0.101)	-0.152** (0.070)	-0.136 (0.102)	-0.117 (0.094)	-0.006 (0.059)	0.019 (0.046)
West	0.002 (0.121)	0.062 (0.084)	-0.216* (0.121)	-0.016 (0.111)	-0.092 (0.075)	-0.043 (0.058)
Income	0.009 (0.013)	0.042*** (0.009)	-0.043*** (0.013)	0.018 (0.012)	-0.024*** (0.008)	-0.016*** (0.006)
Age	0.037*** (0.003)	0.007*** (0.002)	-0.0003 (0.003)	0.005* (0.003)	-0.023*** (0.001)	-0.005*** (0.001)
Political Ideology (reference= Moderate)						
Liberal	0.747*** (0.090)	0.663*** (0.061)	0.583*** (0.141)	0.270** (0.122)	-0.270** (0.125)	-0.353*** (0.118)
Conservative	-1.159*** (0.112)	-0.567*** (0.098)	-1.243*** (0.093)	-0.703*** (0.085)	-1.108*** (0.056)	-0.378*** (0.051)
N	15,172	15,182	4,022	4,035	13,391	13,397

Coefficients reported from logistical regression models. Models include control variables for education, political ideology, partisanship, gender, age, region, income, and race. The dependent variables are coded 1 if the respondent indicated support for the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

A.1.1 CES: additional results

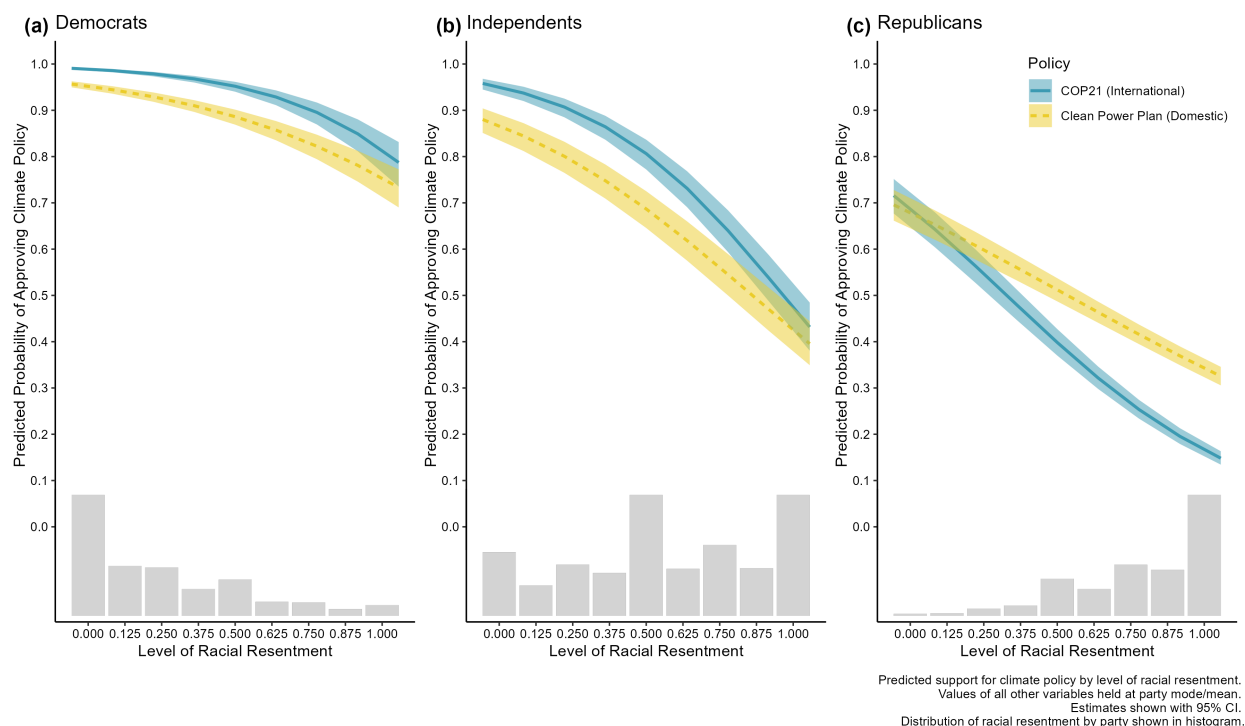


Figure A1: Effect of Racial Resentment on Climate Policy Approval By Party Affiliation

Table A6: Confirmatory Factor Analysis of Racial Resentment Index Items (CES)

Item	Loading	Std. Error
RR_nofavors	0.923	0.001
RR_slavery	0.923	0.001

NOTE: Confirmatory factor analysis of the questions used to create the index of racial resentment. The standardized factor loadings indicate that each of the racial resentment questions contributed to the scale.

A.1.2 Study 1: Robustness checks

In this section, I conduct a variety of robustness checks of the main results. First, I re-run the main models with an alternative specification of racial attitudes. While these two questions are not part of the traditional index of racial resentment questions, these questions provide an additional robustness check of the central results. More specifically, these “color-blind” questions created by Neville et al. (2000) do not explicitly refer to Black Americans and thus attempt to tap into other elements of racial resentment. DeSante and Smith (2020) refer to these questions as part of the FIRE index of racism noting “FIRE is an acronym for fear, acknowledgment of institutional racism, and racial empathy”(DeSante and Smith 2020, 643).

Table A7: Additional racial resentment questions from CES

Variable	Wording
RR_Whites_advantage	White people in the U.S. have certain advantages because of the color of their skin.
RR_racialprobs_rare	Racial problems in the U.S. are rare, isolated situations. [REVERSE CODED]

Table A8: Effect of FIRE Questions on Climate Policy Approval

	White people in the U.S. have advantages		Racial Problems are rare	
	COP21	CPP	COP21	CPP
White people in the U.S. have advantages	-0.633*** (0.014)	-0.397*** (0.012)		
Racial Problems are rare			-0.668*** (0.015)	-0.373*** (0.012)
Education (reference= Associate degree)				
Advanced Degree	0.143* (0.075)	0.272*** (0.058)	0.302*** (0.076)	0.356*** (0.058)
Bachelor's degree	0.078 (0.066)	0.237*** (0.051)	0.201*** (0.067)	0.312*** (0.052)
Some college	-0.038 (0.066)	0.108** (0.051)	-0.060 (0.067)	0.112** (0.052)
High school graduate	0.031 (0.062)	-0.153*** (0.049)	0.047 (0.063)	-0.159*** (0.049)
No high school	0.249** (0.122)	-0.249** (0.099)	0.126 (0.124)	-0.280*** (0.100)
Gender (reference= Female)				
Male	-0.459*** (0.036)	-0.079*** (0.029)	-0.351*** (0.037)	-0.025 (0.029)
Region (reference= Midwest)				
Northeast	-0.035 (0.052)	-0.065 (0.041)	-0.052 (0.053)	-0.053 (0.042)
South	-0.020 (0.045)	-0.024 (0.035)	-0.061 (0.046)	-0.037 (0.036)
West	-0.067 (0.055)	0.021 (0.043)	-0.046 (0.056)	0.034 (0.043)
Income	-0.018*** (0.006)	0.008* (0.005)	-0.003 (0.006)	0.014*** (0.005)
Age	-0.012*** (0.001)	-0.004*** (0.001)	-0.018*** (0.001)	-0.007*** (0.001)
Political Ideology (reference= Moderate)				
Liberal	0.654*** (0.060)	0.714*** (0.046)	0.709*** (0.061)	0.783*** (0.047)
Conservative	-1.123*** (0.043)	-0.445*** (0.039)	-1.188*** (0.044)	-0.501*** (0.040)
Political Party (leaners inc.) (reference= Independent)				
Democrat	1.245*** (0.058)	0.425*** (0.049)	1.354*** (0.059)	0.512*** (0.049)
Republican	-0.761*** (0.049)	-0.387*** (0.045)	-0.754*** (0.050)	-0.378*** (0.045)
N	32,614	32,643	31,822	31,850

Coefficients reported from logistical regression models. The dependent variables are coded 1 if the respondent indicated support for the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Table A7 provides the wording of these additional questions that make up an alternative color-blind racial resentment index.

Respondents in the 2020 CES were also asked a series of questions about *potential* climate proposals (see Table A9 for wording). The hypothetical climate proposals are an additional check on the effect of racial resentment at reducing support for even hypothetical climate action. In Table A10, I display results from running models for each of the four proposals.

In Table A11 I test for an alternative explanation for the findings, that racial resentment may be capturing narrower material interests based upon local geography or industry effects. I merge the CES data with Bureau of Labor Statistics (BLS) industry-level employment data, which has been used elsewhere to determine climate employment threat and gain (Lim, Aklin, and Frank 2023) and find that the results are robust. Additionally, I analyze the data by rural and non-rural here as well finding that racial resentment is a significant predictor of lower support for climate action.

Below I re-create the analysis in Table A10 for the 2016 and 2018 CES surveys. The effect of racial resentment remains statistically and substantively significant going back further in time and the coefficients are broadly stable over time.

Table A9: Potential proposals DVs

Variable	Wording
regulate_CO2	Give the Environmental Protection Agency power to regulate Carbon Dioxide emissions
renewable_fuels	Require that each state use a minimum amount of renewable fuels (wind, solar, and hydroelectric) in the generation of electricity even if electricity prices increase a little
strengthen_EPA	Strengthen the Environmental Protection Agency enforcement of the Clean Air Act and Clean Water Act even if it costs U.S. jobs
raise_fuelefficiency	Raise the average fuel efficiency for all cars and trucks in the U.S. from 40 miles per gallon to 54.5 miles per gallon by 2025.

Table A10: Overall Effect of Racial Resentment on Climate Proposal Approval

	Regulate CO2	Renewable Fuels	Strengthen EPA	Raise Fuel Efficiency
Racial Resentment	-2.298*** (0.064)	-2.117*** (0.059)	-2.687*** (0.063)	-1.740*** (0.058)
Education (reference= Associate degree)				
Advanced Degree	-0.073 (0.066)	-0.227*** (0.063)	0.084 (0.068)	-0.029 (0.059)
Bachelor's degree	-0.108* (0.058)	-0.073 (0.055)	0.005 (0.060)	-0.070 (0.053)
Some college	-0.128** (0.058)	-0.110** (0.055)	-0.062 (0.060)	-0.046 (0.053)
High school graduate	0.228*** (0.055)	0.077 (0.052)	0.098* (0.056)	0.128** (0.050)
No high school	0.106 (0.109)	-0.160 (0.105)	0.349*** (0.111)	0.041 (0.103)
Gender (reference= Female)				
Male	-0.527*** (0.032)	-0.419*** (0.030)	-0.169*** (0.033)	-0.549*** (0.029)
Region (reference= Midwest)				
Northeast	0.180*** (0.047)	0.027 (0.044)	0.056 (0.048)	0.205*** (0.043)
South	0.106*** (0.040)	-0.056 (0.038)	0.026 (0.041)	0.125*** (0.036)
West	-0.199*** (0.049)	-0.129*** (0.046)	-0.158*** (0.050)	-0.089** (0.044)
Income	-0.035*** (0.005)	-0.025*** (0.005)	-0.018*** (0.005)	-0.051*** (0.005)
Age	0.001 (0.001)	0.001 (0.001)	-0.001 (0.001)	-0.006*** (0.001)
Political Ideology (reference= Moderate)				
Liberal	0.675*** (0.062)	0.506*** (0.053)	0.740*** (0.056)	0.449*** (0.051)
Conservative	-0.939*** (0.042)	-0.842*** (0.040)	-0.904*** (0.041)	-0.662*** (0.040)
Political Party (leaners inc.) (reference= Independent)				
Democrat	1.154*** (0.058)	0.841*** (0.053)	1.011*** (0.053)	0.629*** (0.052)
Republican	-0.206*** (0.047)	-0.258*** (0.046)	-0.364*** (0.047)	-0.191*** (0.046)
N	32,746	32,750	32,749	32,747

Coefficients reported from logistical regression models. The dependent variables are coded 1 if the respondent indicated support for the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Table A11: Effect of Racial Resentment: Industry-Based Analysis

	Employment quotient		Wage quotient	
	COP21		CPP	
Racial Resentment	-3.059*** (0.069)	-2.018*** (0.056)	-3.059*** (0.069)	-2.018*** (0.056)
Employment quotient	-0.015* (0.008)	-0.008 (0.006)		
Wage quotient			-0.014** (0.007)	-0.008 (0.005)
Education (reference= Associate degree)				
Advanced Degree	0.075 (0.076)	0.213*** (0.059)	0.074 (0.076)	0.212*** (0.059)
Bachelor's degree	0.033 (0.067)	0.202*** (0.052)	0.033 (0.067)	0.201*** (0.052)
Some college	-0.079 (0.067)	0.093* (0.052)	-0.079 (0.067)	0.093* (0.052)
High school graduate	0.057 (0.062)	-0.127*** (0.049)	0.057 (0.062)	-0.127*** (0.049)
No high school	0.193 (0.122)	-0.263*** (0.100)	0.194 (0.122)	-0.262*** (0.100)
Gender (reference= Female)				
Male	-0.497*** (0.037)	-0.098*** (0.029)	-0.497*** (0.037)	-0.098*** (0.029)
Region (reference= Midwest)				
Northeast	-0.041 (0.052)	-0.075* (0.042)	-0.041 (0.052)	-0.075* (0.042)
South	-0.050 (0.045)	-0.044 (0.036)	-0.046 (0.045)	-0.042 (0.036)
West	-0.081 (0.056)	0.006 (0.044)	-0.083 (0.056)	0.006 (0.044)
Income	-0.020*** (0.006)	0.008* (0.005)	-0.020*** (0.006)	0.008* (0.005)
Age	-0.007*** (0.001)	-0.0004 (0.001)	-0.007*** (0.001)	-0.0004 (0.001)
Political Ideology (reference= Moderate)				
Liberal	0.490*** (0.061)	0.561*** (0.048)	0.490*** (0.061)	0.561*** (0.048)
Conservative	-1.118*** (0.044)	-0.437*** (0.039)	-1.118*** (0.044)	-0.437*** (0.039)
Political Party (leaners inc.) (reference= Independent)				
Democrat	1.249*** (0.058)	0.397*** (0.049)	1.249*** (0.058)	0.397*** (0.049)
Republican	-0.689*** (0.050)	-0.344*** (0.045)	-0.689*** (0.050)	-0.344*** (0.045)
N	32,137	32,166	32,137	32,166

Coefficients reported from logistical regression models. Models include control variables for education, political ideology, gender, age, region, income, and race. The dependent variables are coded 1 if the respondent indicated support for the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Table A12: Overall Effect of Racial Resentment on Climate Policy Approval (By Rural)

	Non-Rural		Rural	
	COP21	CPP	COP21	CPP
Racial Resentment	-3.229*** (0.080)	-2.118*** (0.064)	-2.568*** (0.137)	-1.693*** (0.113)
Education (reference= Associate degree)				
Advanced Degree	-0.093 (0.060)	-0.069 (0.048)	0.159 (0.104)	-0.052 (0.083)
Bachelor's degree	-0.093* (0.053)	-0.044 (0.042)	0.078 (0.085)	-0.027 (0.067)
Some college	-0.079 (0.062)	0.023 (0.049)	-0.282** (0.125)	-0.117 (0.095)
High school graduate	0.084 (0.087)	0.203*** (0.068)	0.049 (0.160)	0.286** (0.124)
No high school	0.059 (0.077)	0.210** (0.060)	-0.078 (0.135)	0.158 (0.104)
Gender (reference= Female)				
Male	-0.066 (0.079)	0.079 (0.061)	-0.096 (0.123)	0.130 (0.096)
Region (reference= Midwest)				
Northeast	0.089 (0.075)	-0.119** (0.059)	-0.011 (0.112)	-0.144 (0.089)
South	0.125 (0.157)	-0.225* (0.126)	0.271 (0.193)	-0.346** (0.163)
West	-0.442*** (0.042)	-0.085** (0.033)	-0.671*** (0.074)	-0.146*** (0.057)
Income	-0.021*** (0.007)	0.008 (0.005)	-0.014 (0.012)	0.002 (0.009)
Age	-0.005*** (0.001)	-0.0003 (0.001)	-0.011*** (0.002)	0.001 (0.002)
Political Ideology (reference= Moderate)				
Liberal	0.442*** (0.069)	0.591*** (0.054)	0.644*** (0.131)	0.451*** (0.101)
Conservative	-1.159*** (0.051)	-0.464*** (0.046)	-1.041*** (0.083)	-0.390*** (0.075)
Political Party (leaners inc.) (reference= Independent)				
Democrat	1.222*** (0.067)	0.374*** (0.056)	1.280*** (0.119)	0.442*** (0.100)
Republican	-0.677*** (0.057)	-0.328*** (0.052)	-0.716*** (0.096)	-0.380*** (0.086)
N	25,316	25,329	7,253	7,268

Coefficients reported from logistical regression models. Models include control variables for education, political ideology, gender, age, region, income, and race. The dependent variables are coded 1 if the respondent indicated support for the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Table A13: 2016: Effect of Racial Resentment on Climate Proposal Approval

	Regulate CO2	Renewable Fuels	Strengthen EPA	Raise Fuel Efficiency
Racial Resentment	-1.780*** (0.344)	-1.406*** (0.321)	-1.259*** (0.330)	-1.406*** (0.321)
Education (reference= Associate degree)				
Advanced Degree	-0.185 (0.177)	0.247 (0.166)	0.054 (0.172)	0.247 (0.166)
Bachelor's degree	-0.359** (0.158)	-0.050 (0.148)	-0.050 (0.154)	-0.050 (0.148)
Some college	-0.223 (0.150)	0.021 (0.141)	-0.268* (0.148)	0.021 (0.141)
High school graduate	-0.147 (0.148)	-0.071 (0.139)	-0.159 (0.144)	-0.071 (0.139)
No high school	-0.018 (0.307)	-0.298 (0.287)	-0.430 (0.303)	-0.298 (0.287)
Gender (reference= Female)				
Male	-0.618*** (0.085)	-0.288*** (0.080)	-0.228*** (0.084)	-0.288*** (0.080)
Region (reference= Midwest)				
Northeast	0.447*** (0.127)	0.094 (0.118)	0.325*** (0.122)	0.094 (0.118)
South	0.121 (0.109)	-0.124 (0.103)	0.011 (0.108)	-0.124 (0.103)
West	-0.013 (0.128)	0.067 (0.121)	0.285** (0.126)	0.067 (0.121)
Income	-0.017 (0.013)	-0.012 (0.012)	-0.004 (0.013)	-0.012 (0.012)
Age	-0.020*** (0.003)	-0.008*** (0.003)	-0.015*** (0.003)	-0.008*** (0.003)
Political Ideology (reference= Moderate)				
Liberal	0.777*** (0.157)	0.586*** (0.134)	0.639*** (0.128)	0.586*** (0.134)
Conservative	-0.642*** (0.096)	-0.639*** (0.092)	-0.885*** (0.097)	-0.639*** (0.092)
Political Party (leaners inc.) (reference= Independent)				
Democrat	1.535*** (0.134)	0.945*** (0.122)	1.166*** (0.121)	0.945*** (0.122)
Republican	-0.157 (0.112)	-0.279** (0.109)	-0.252* (0.114)	-0.279** (0.109)
N	3,253	3,254	3,255	3,254

Coefficients reported from logistical regression models. Models include control variables for education, political ideology, gender, age, region, income, and race. The dependent variables are coded 1 if the respondent indicated supporting the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Table A14: 2018: Effect of Racial Resentment on Climate Proposal Approval

	Regulate CO2	Renewable Fuels	Strengthen EPA	Raise Fuel Efficiency
Racial Resentment	-1.832*** (0.061)	-1.636*** (0.056)	-2.493*** (0.063)	-1.202*** (0.055)
Education (reference= Associate degree)				
Advanced Degree	-0.014 (0.062)	-0.116** (0.057)	-0.002 (0.065)	0.081 (0.055)
Bachelor's degree	-0.074 (0.055)	-0.036 (0.051)	-0.005 (0.058)	0.016 (0.049)
Some college	-0.050 (0.056)	-0.035 (0.052)	-0.0002 (0.059)	-0.116** (0.049)
High school graduate	0.196*** (0.053)	0.037 (0.049)	0.030 (0.056)	-0.084* (0.047)
No high school	0.212** (0.101)	0.002 (0.095)	0.055 (0.106)	-0.323*** (0.089)
Gender (reference= Female)				
Male	-0.491*** (0.030)	-0.315*** (0.028)	-0.170*** (0.032)	-0.158*** (0.027)
Region (reference= Midwest)				
Northeast	0.262*** (0.045)	0.113*** (0.042)	0.197*** (0.047)	-0.011 (0.040)
South	0.121*** (0.038)	-0.011 (0.035)	0.076* (0.040)	0.010 (0.033)
West	-0.235*** (0.044)	-0.120*** (0.041)	-0.102** (0.047)	-0.049 (0.039)
Income	-0.029*** (0.005)	-0.014*** (0.005)	0.004 (0.005)	-0.009** (0.004)
Age	-0.007*** (0.001)	-0.004*** (0.001)	-0.008*** (0.001)	-0.001 (0.001)
Political Ideology (reference= Moderate)				
Liberal	0.424*** (0.053)	0.537*** (0.046)	0.632*** (0.051)	0.070 (0.044)
Conservative	-0.903*** (0.036)	-0.661*** (0.035)	-0.871*** (0.037)	-0.452*** (0.036)
Political Party (leaners inc.) (reference= Independent)				
Democrat	1.155*** (0.052)	0.716*** (0.047)	1.016*** (0.050)	0.232*** (0.049)
Republican	-0.288*** (0.112)	-0.317*** (0.109)	-0.555*** (0.114)	-0.241*** (0.109)
N	32,474	32,492	32,504	32,479

Coefficients reported from logistical regression models. Models include control variables for education, political ideology, gender, age, region, income, and race. The dependent variables are coded 1 if the respondent indicated supporting the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

A.2 Study 2: Experimental Results

A.2.1 Research ethics statement

The human subject research in this study was reviewed and determined to be exempt from further review by the [AUTHOR'S] institutional review board (23-0389) and adheres to the APSA's Principles and Guidance on Human Subject Research. Qualtrics recruited participants through an online opt-in model. Respondents were required to give their voluntary and informed consent after being provided with a description of the survey and prior to beginning the survey. Additionally, respondents were compensated by Qualtrics for the approximately 10 minute survey, at a level determined by Qualtrics to be commensurate with the standards of other survey providers. The study did not specifically target any vulnerable groups, represent any undue risk to respondents, or utilize deception.

A.2.2 Moderators

Table A15: Racial resentment and Nationalism Questions

Variable	Wording
RR_nofavors	Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.
RR_slavery	Generations of slavery and discrimination have created conditions that make it difficult for Blacks to work their way out of the lower class. [REVERSE CODED]
RR_deserve	Over the past few years, blacks have gotten less than they deserve. [REVERSE CODED]
RR_tryharder	It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as White people.
NAT_Superior	"In the United States, our people are not perfect, but our culture is superior to others"
NAT_Ratherbe	"I would rather be a citizen of America than of any other country in the world."
NAT_BetterPlace	"The world would be a better place if people from other countries were more like Americans."

A.2.3 Treatment wording

Respondents viewed a common preamble reading "In the next section, we will present you with information about a hypothetical climate [agreement/policy]. This is a general scenario about a hypothetical [agreement/policy]. It is not about any specific [agreement/policy] that you may have heard about in the news. Please read the details of the scenario carefully, afterwards we will ask for your opinion regarding the [agreement/policy]."

After the preamble, respondents viewed one of six different treatment conditions concerning the hypothetical [agreement/policy]. Shown below

- **International X Benefit Frame:** The U.S. Congress is debating approving a new international climate agreement. The agreement is between the United States and a number of other countries around the world. The purpose of the agreement is to help the member countries slow down the global effects of climate change.

The agreement is designed to reduce the negative impacts of the changing climate for non-White people.

- **International X Harm Frame:** The U.S. Congress is debating approving a new international climate agreement. The agreement is between the United States and a number of other countries around the world. The purpose of the agreement is to help the member countries slow down the global effects of climate change.

Researchers studying the effects of climate change have found consistent evidence that non-White people are more negatively harmed by the changing climate than White people.

- **International X Control:** The U.S. Congress is debating approving a new international climate agreement. The agreement is between the United States and a number of other countries around the world. The purpose of the agreement is to help the member countries slow down the global effects of climate change.

- **Domestic X Benefit Frame:** The U.S. Congress is debating approving a new domestic climate policy. The purpose of the policy is to help the U.S. slow down the domestic effects of climate change.
The policy is designed to reduce the negative impacts of the changing climate for non-White people.
- **Domestic X Harm Frame:** The U.S. Congress is debating approving a new domestic climate policy. The purpose of the policy is to help the U.S. slow down the domestic effects of climate change.
Researchers studying the effects of climate change have found consistent evidence that non-White people are more negatively harmed by the changing climate than White people.
- **Domestic X Control:** The U.S. Congress is debating approving a new domestic climate policy. The purpose of the policy is to help the U.S. slow down the domestic effects of climate change.

Evaluations

After viewing information about the policy/agreement all respondents are asked the following questions:

- **DV:** Do you support or oppose the United States [approving the pending domestic climate policy/ joining the international climate agreement]?
 - Strongly support (4)
 - Somewhat support (3)
 - Neither support nor oppose (2)
 - Somewhat oppose (1)
 - Strongly oppose (0)
- **DV2:** To what extent do you believe the proposed [policy/agreement] will help or harm people like you?
 - Help a great deal (4)
 - Help a moderate amount (3)
 - Neither help nor harm (2)
 - Harm a moderate amount (1)
 - Harm a great deal (0)
- **Manipulation Check: benefit:** Which of the following groups of people is the proposed [policy/agreement] designed to benefit?
 - White people
 - Non-white people
 - Democrats
 - Republicans
 - Don't know
- **Manipulation Check: harm:** Researchers studying the effects of climate change have found consistent evidence that which of the following groups of people are most negatively impacted by climate change?
 - White people
 - Non-white people
 - Democrats
 - Republicans
 - Don't know

A.2.4 Demographics

A.2.5 Additional analysis

Table A16: Demographic Balance Table

		control (N=380)		benefit (N=406)		harm (N=371)	
		N	Pct.	N	Pct.	N	Pct.
Age	18 - 24	33	8.7	36	8.9	30	8.1
	25 - 34	52	13.7	57	14.0	53	14.3
	35 - 44	77	20.3	78	19.2	87	23.5
	45 - 54	50	13.2	62	15.3	36	9.7
	55 or older	168	44.2	173	42.6	165	44.5
Gender	Female	183	48.2	202	49.8	186	50.1
	Male	195	51.3	202	49.8	179	48.2
	Neither of the above	1	0.3	2	0.5	5	1.3
Income	Up to \$29,999	69	18.2	68	16.7	78	21.0
	\$30,000–\$59,999	89	23.4	90	22.2	76	20.5
	\$60,000–\$99,999	96	25.3	109	26.8	93	25.1
	\$100,000–\$149,999	84	22.1	87	21.4	79	21.3
	More than \$150,000	35	9.2	46	11.3	42	11.3
	Prefer not to say	7	1.8	6	1.5	3	0.8
PartyID	Independent	99	26.1	95	23.4	98	26.4
	Democrat	125	32.9	140	34.5	119	32.1
	Republican	132	34.7	136	33.5	126	34.0
	Don't know/other	23	6.1	34	8.4	27	7.3
Poli_interest	Most of the time	170	44.7	184	45.3	162	43.7
	Some of the time	125	32.9	134	33.0	130	35.0
	Only now and then	50	13.2	54	13.3	48	12.9
	Hardly at all	34	8.9	34	8.4	30	8.1
Religiosity	More than once a week	39	10.3	31	7.6	35	9.4
	Once a week	75	19.7	91	22.4	70	18.9
	A few times a month	37	9.7	30	7.4	39	10.5
	A few times a year	53	13.9	57	14.0	70	18.9
	Never	126	33.2	120	29.6	103	27.8
Educ	Associate's Degree	37	9.7	26	6.4	41	11.1
	Less than high school	16	4.2	13	3.2	11	3.0
	High school graduate	82	21.6	88	21.7	99	26.7
	Some college	114	30.0	114	28.1	90	24.3
	Bachelor's Degree	73	19.2	105	25.9	73	19.7
	Advanced Degree	58	15.3	60	14.8	57	15.4
Racialresentment_catagory	Racial_moderate	69	18.2	87	21.4	72	19.4
	Racial_liberal	133	35.0	139	34.2	128	34.5
	Racial_conservative	174	45.8	179	44.1	169	45.6

Table A17: Confirmatory Factor Analysis of Racial Resentment Index Items

Item	Loading	Std. Error
RR_nofavors	0.770	0.015
RR_slavery	0.769	0.015
RR_deserve	0.729	0.015
RR_tryharder	0.743	0.015

NOTE: Confirmatory factor analysis of the questions used to create the index of racial resentment. The standardized factor loadings indicate that each of the racial resentment questions contributed to the scale.

Table A18: Confirmatory Factor Analysis of Nationalism Index Items

Item	Loading	Std. Error
NAT_Superior	0.875	0.022
NAT_Ratherbe	0.612	0.024
NAT_BetterPlace	0.777	0.021

NOTE: Confirmatory factor analysis of the questions used to create the index of nationalism. The standardized factor loadings indicate that each of the nationalism questions contributed to the scale.

Table A19: Heterogeneous Effects of Frame Treatment on Climate Policy Approval

	Racial Resentment	Nationalism
Frame (reference= control)		
Benefit * Racial Resentment	-0.316 (0.303)	
Harm * Racial Resentment	-0.660** (0.311)	
Benefit * Nationalism		0.165 (0.478)
Harm * Nationalism		-0.376 (0.478)
Benefit	-0.176 (0.178)	-0.370 (0.311)
Harm	0.060 (0.185)	-0.161 (0.315)
Racial Resentment	-1.042*** (0.230)	
Nationalism		-0.141 (0.357)
Age (reference= 18-24)		
25 - 34	0.209 (0.138)	-0.074 (0.218)
35 - 44	0.320** (0.130)	0.065 (0.205)
45 - 54	0.217 (0.141)	0.088 (0.223)
55 or older	0.148 (0.125)	-0.168 (0.197)
Gender (reference= Female)		
Male	0.149** (0.066)	0.112 (0.102)
Other	0.240 (0.409)	-0.470 (0.506)
Income (reference= Up to \$29,999)		
\$30,000-\$59,999	-0.191* (0.102)	-0.222 (0.154)
\$60,000-\$99,999	-0.078 (0.103)	-0.312** (0.154)
\$100,000-\$149,999	0.019 (0.116)	-0.123 (0.176)
More than \$150,000	0.219 (0.138)	0.135 (0.211)
Prefer not to say	-0.457* (0.276)	-0.846*** (0.325)
Political Party (reference= Independent)		
Democrat	0.425*** (0.089)	0.646*** (0.129)
Republican	-0.212** (0.091)	-0.245* (0.134)
Don't know/Other	-0.302** (0.139)	-0.107 (0.213)
Political Ideology (reference= Moderate)		
Liberal	0.200** (0.086)	0.416*** (0.126)
Conservative	-0.560*** (0.087)	-0.592*** (0.125)
Political interest	0.103*** (0.037)	0.102* (0.059)
Religiosity	0.019 (0.020)	-0.010 (0.031)
Education (reference= Associate's Degree)		
Less than high school	-0.096 (0.204)	-0.043 (0.328)
High school graduate	0.050 (0.126)	-0.026 (0.188)
Some college	0.048 (0.122)	-0.038 (0.181)
Bachelor's Degree	-0.108 (0.130)	-0.088 (0.198)
Advanced Degree	0.015 (0.143)	0.112 (0.211)
Constant	2.786*** (0.222)	2.756*** (0.353)
N	1,137	561
R ²	0.369	0.360
Adjusted R ²	0.353	0.326
Residual Std. Error	1.049 (df = 1108)	1.080 (df = 532)
F Statistic	23.108*** (df = 28; 1108)	10.680*** (df = 28; 532)

Coefficients reported from OLS regression models. The dependent variable is coded on a five point scale, with four indicating support a great deal. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

A.2.6 Results by Scope

Although not hypothesized ex-ante, the *Scope* treatment allows me to disentangle the effect of the cues on both international and domestic climate action. In Figure A2 I break out the effects of the *Frame* by *Scope*. Across all four treatment conditions, I find a negative effect for *Frame* treatment conditions compared to the control. The negative effect of the cues is statistically significant at the $p < 0.05$ level in all but harm for the domestic scope ($p=0.26$).

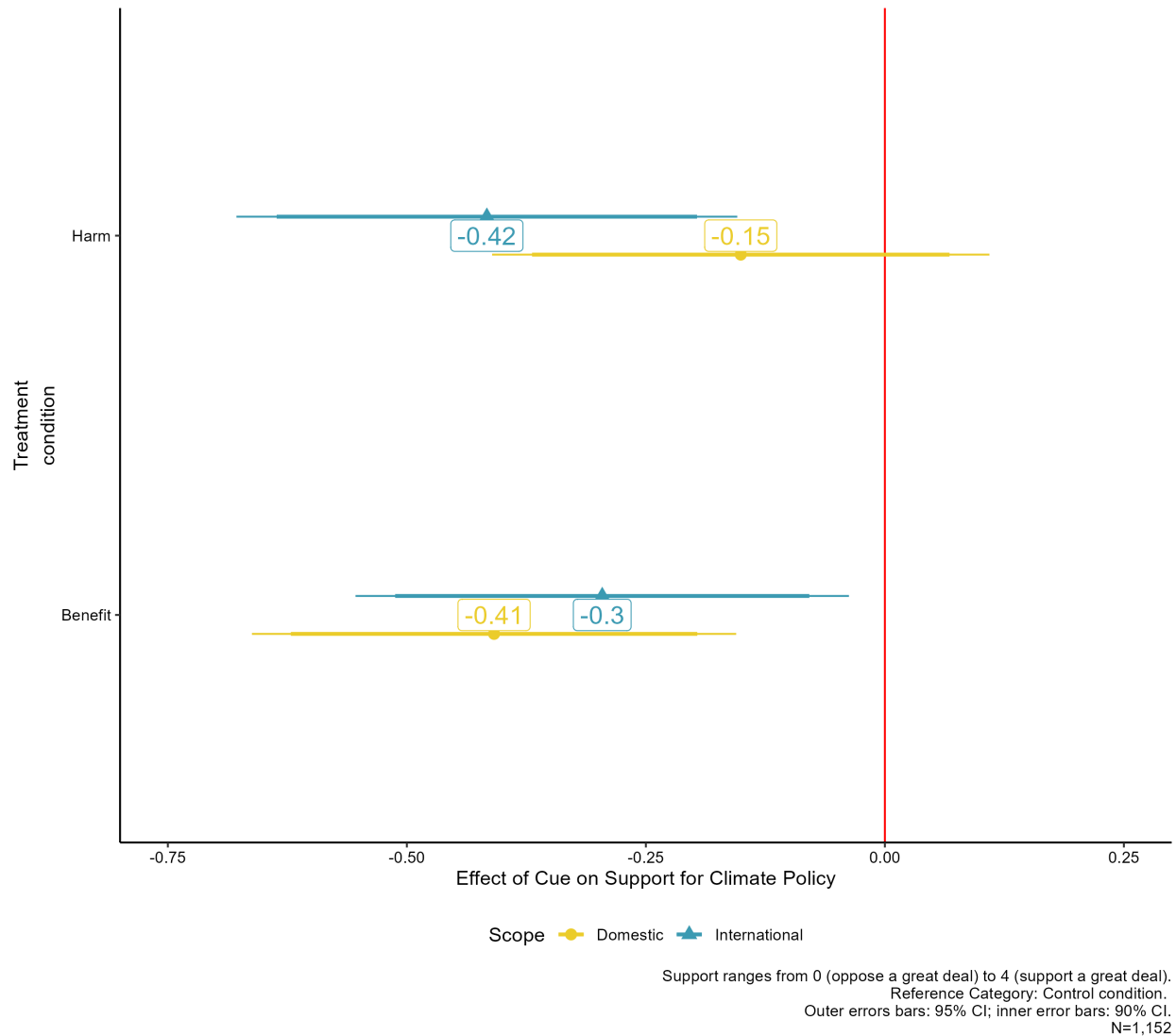


Figure A2: Effect of Cues on Support for Climate Action by Type

As before, I use the question concerning perceived personal benefit to explore a potential mechanism through which the treatments are reducing support. Again, I find evidence that those in either the *harm* or *benefit* condition, regardless of scope, reduced the respondent's perceptions that the climate action would benefit themselves.

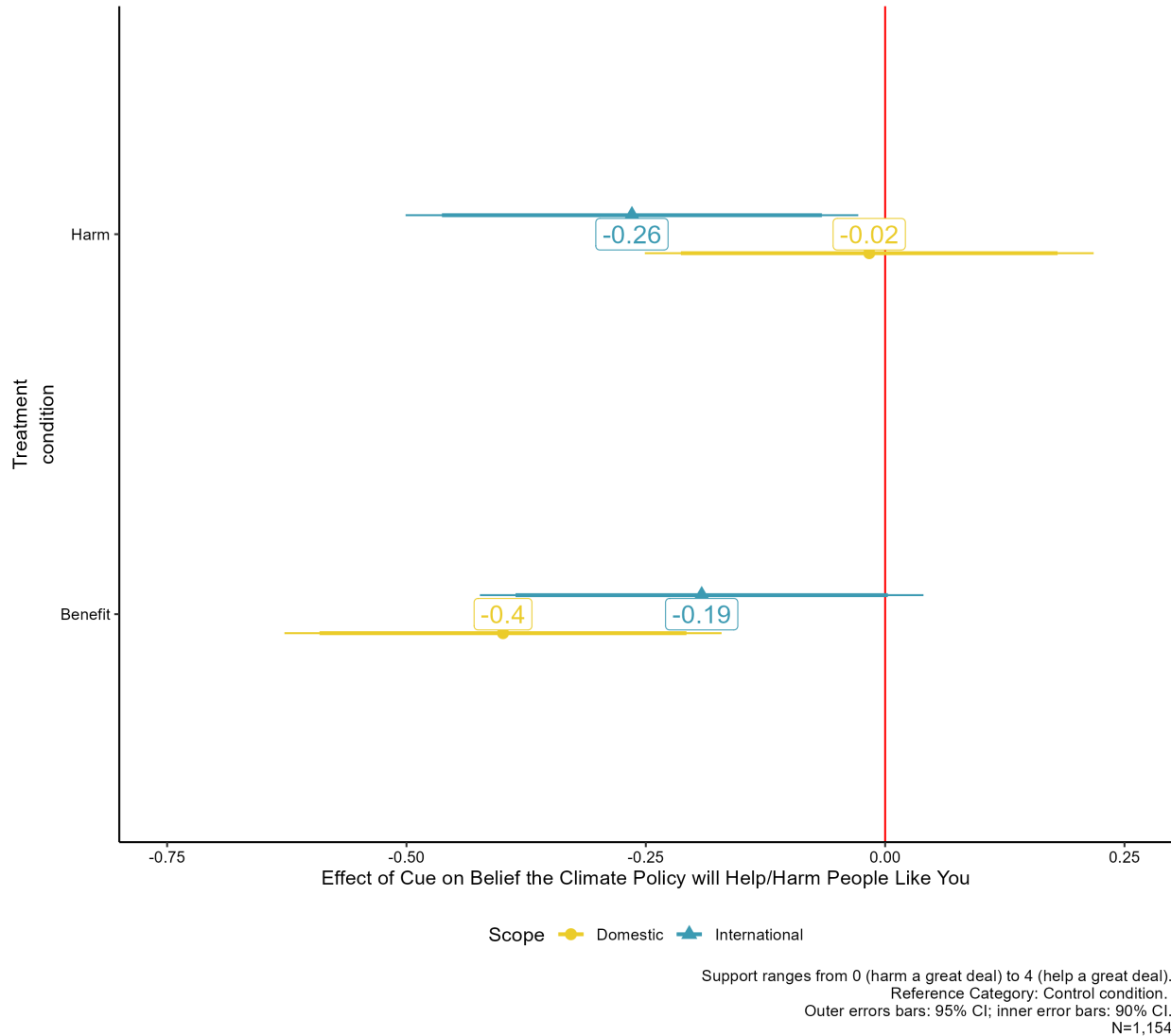


Figure A3: Effect of Cues on Perceived Personal Benefit of Climate Action by Type

While not pre-registered, I also find that respondents do appear to differentiate somewhat based on the scope of the treatment. The largest decline was among those in the *domesticXbenefit* condition, who reported a -0.4 point decline ($p < 0.001$) decline relative to respondents in *domesticXcontrol*. Those in the international condition who received the *harm* cue had a decline in the perceived personal benefit of the climate action reducing their perception of personal benefit by 0.26 points ($p=0.03$); on the contrary, those in the *domesticXharm* condition did not appear to have lowered belief that the policy would benefit them, compared to those in the *domesticXcontrol*.

A.2.7 Alternative Explanation: Nationalism

In this section, I briefly explore the effect of nationalism moderating the treatment effects and include a proxy measure for nationalism in the CES results. Mansfield and Mutz (2009) find that Americans who believe trade agreements unfairly benefit other countries at the expense of the U.S. are more likely to be xenophobic and exhibit nationalistic beliefs. Other research demonstrates that perceptions of how agreements influence the country as a whole are a determinant of an individual's preferences (Mutz and Lee 2020). Climate agreements in particular

may active feelings of competition and sociotropic perceptions (Ditmore and Parajon 2024). Thus, it is possible that for individuals who express higher levels of nationalism, international climate agreements will also cause the respondent to consider feelings of ethnocentrism and competition towards the perceived “other” who may benefit from U.S. involvement in the agreement.³⁵ Thus, I consider feelings of nationalism as an additional attitude that may moderate the effect of the cues. Utilizing the nationalism index also enables me to measure if nationalism and racial resentment are measuring similar or different attitudes that may moderate the effect of the treatment conditions.

To explore the role of nationalism in moderating the treatment effects, I include an index of nationalism and restrict the scope to international. As with racial resentment, I constructed a scale of nationalism using standard techniques (Mutz and Kim 2017) and coded each response to the questions from 0 to 4 by 1 increments (where 2 is neutral) then summing and dividing the total by 12 (the number of questions multiplied by the increments) to make a scale with ranging from 0 (minimum nationalism) to 1 (maximum nationalism).³⁶ The mean of the nationalism index is 0.59.³⁷

Unlike the racial resentment results, I find little evidence that nationalism moderates the treatment effect. Results are shown in Table A20. I find little evidence for the existence of conditional treatment effects by respondent’s level of reported nationalism.³⁸ While respondents in the *harm* condition do seem to move in a step-wise manor with larger negative effects among respondents with higher nationalism scores relative to those in the control condition, those in the *benefit* condition do not and the interaction effect of *harmXNationalism* ($p = 0.43$), and *benefitXNationalism* ($p = 0.73$) is not statistically significant. This indicates that unlike racial resentment, feelings of heightened nationalism does not moderate the effect of the cues.

While parallel questions were not available in the correlational data I incorporate a proxy indicator available in the CES dataset: support for declaring a national emergency to permit construction of a border wall with Mexico. See Table A21, the results are robust to its inclusion, suggesting that the observed relationship between racial resentment and climate attitudes is not reducible to nationalist sentiment alone.

35. I restrict the analysis of nationalism as a moderator to the international scope as international agreements are the most likely scenario to trigger possible effects of nationalism. The results are similar when analyzing both domestic and international climate policy together.

36. The Cronbach’s alpha is 0.75 suggesting high internal reliability.

37. The Pearson correlation coefficient between racial resentment and nationalism is 0.346 suggesting a weak relationship.

38. Full results including controls are reported in Table A19

Table A20: Heterogeneous Effects of Treatment on Climate Policy Approval: Nationalism

Frame (reference= Control)	
Benefit * Nationalism	0.165 (0.478)
Harm * Nationalism	−0.376 (0.478)
Benefit	−0.370 (0.311)
Harm	−0.161 (0.315)
Nationalism	−0.141 (0.357)
N	561
R ²	0.360
Control Variables	Yes

Coefficients reported from OLS regression model. Model includes control variables for age, gender, income, partyID, political interest, religiosity, political ideology, and education level. The dependent variable is coded on a five point scale, with four indicating support a great deal. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Table A21: CES Effect of Racial Resentment on Climate Policy Approval: Wall Control

	COP21	CPP
Racial Resentment	−2.372*** (0.073)	−1.653*** (0.059)
Education (reference= Associate degree)		
Advanced Degree	−0.037 (0.079)	0.179*** (0.059)
Bachelor's degree	−0.034 (0.070)	0.181*** (0.052)
Some college	−0.084 (0.070)	0.093* (0.052)
High school graduate	0.079 (0.065)	−0.125** (0.050)
No high school	0.256** (0.126)	−0.244** (0.100)
Gender (reference= Female)		
Male	−0.462*** (0.038)	−0.068** (0.029)
Region (reference= Midwest)		
Northeast	0.014 (0.055)	−0.050 (0.042)
South	−0.005 (0.047)	−0.023 (0.036)
West	−0.078 (0.058)	0.012 (0.044)
Income	−0.020*** (0.006)	0.008* (0.005)
Age	−0.003** (0.001)	0.001 (0.001)
Political Ideology (reference= Moderate)		
Liberal	0.488*** (0.063)	0.581*** (0.048)
Conservative	−0.949*** (0.046)	−0.303*** (0.040)
Political Party (leaners inc.) (reference= Independent)		
Democrat	1.041*** (0.061)	0.264*** (0.050)
Republican	−0.413*** (0.053)	−0.178*** (0.046)
Support Wall at Southern Border (reference= Oppose)	−1.516*** (0.041)	−0.828*** (0.036)
N	32,582	32,610

Coefficients reported from logit regression models. The dependent variables are coded 1 if the respondent indicated supporting the climate policy option and 0 if they opposed the climate policy option. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

Furthermore, I pre-registered three additional hypothesis concerning the scope of climate action. In contrast to my expectations, I find that respondents preferred the hypothetical *international* climate agreement over the domestic climate policy.

Table A22: Effects of Scope Treatment on Climate Policy Approval

	Main Effects	Racial Resentment	Nationalism
Scope (reference= Domestic)			
International * Racial Resentment		-0.050 (0.436)	
International * Nationalism			0.221 (0.461)
International	0.275** (0.128)	0.225 (0.258)	0.050 (0.300)
Racial Resentment		-1.028*** (0.320)	
Nationalism			-0.302 (0.327)
Age (reference= 18-24)			
25 - 34		-0.093 (0.244)	-0.201 (0.248)
35 - 44		0.146 (0.225)	0.061 (0.230)
45 - 54		0.038 (0.250)	-0.125 (0.253)
55 or older		-0.042 (0.221)	-0.155 (0.229)
Gender (reference= Female)			
Male		0.003 (0.118)	-0.060 (0.122)
Other		-0.060 (1.096)	-0.200 (1.127)
Income (reference= Up to \$29,999)			
\$30,000-\$59,999		-0.258 (0.179)	-0.262 (0.182)
\$60,000-\$99,999		-0.179 (0.182)	-0.174 (0.185)
\$100,000-\$149,999		0.038 (0.204)	0.053 (0.207)
More than \$150,000		-0.199 (0.264)	-0.169 (0.264)
Prefer not to say		-0.579 (0.427)	-0.451 (0.434)
Political Party (reference= Independent)			
Democrat		0.360** (0.153)	0.389** (0.156)
Republican		-0.291* (0.157)	-0.334** (0.160)
Don't know/Other		-0.803*** (0.265)	-0.827*** (0.265)
Political Ideology (reference= Moderate)			
Liberal		0.321** (0.150)	0.443*** (0.149)
Conservative		-0.375** (0.155)	-0.494*** (0.155)
Political interest		0.160** (0.063)	0.167** (0.065)
Religiosity		-0.013 (0.035)	-0.019 (0.036)
Education (reference= Associate's Degree)			
Less than high school		0.529 (0.337)	0.421 (0.339)
High school graduate		0.305 (0.216)	0.239 (0.220)
Some college		0.279 (0.208)	0.278 (0.212)
Bachelor's Degree		0.112 (0.231)	0.115 (0.236)
Advanced Degree		0.314 (0.251)	0.376 (0.255)
Constant	2.489*** (0.091)	2.701*** (0.349)	2.479*** (0.360)
N	379	372	376
R ²	0.012	0.361	0.339
Adjusted R ²	0.009	0.313	0.290
Residual Std. Error	1.248 (df = 377)	1.039 (df = 345)	1.060 (df = 349)
F Statistic	4.600** (df = 1; 377)	7.488*** (df = 26; 345)	6.883*** (df = 26; 349)

Coefficients reported from OLS regression models. The dependent variable is coded on a five point scale, with four indicating support a great deal. Significance codes: *p<0.1; **p<0.05; ***p<0.01, two-tailed tests.

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