Costless Defection: How Leader Counter-Rhetoric Undermines the Paris Agreement

Matias Spektor * Guilherme Fasolin† Renan Marques‡

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Abstract

Lacking legally binding targets and punitive measures to prevent defection from international environmental cooperation, the Paris Agreement relies on effective peer pressure to ensure compliance. Scholars have shown foreign climate shaming against advanced democracies of the Western world to drive domestic public support for compliance with the agreement, with rhetorical efforts by incumbents to counteract the criticism having limited use. The present study extends the analysis to the Global South, a region essential to the success of the Paris Agreement due to its growing emissions and disproportionate vulnerability to climate change. Through survey experiments fielded in Brazil, we find that foreign climate shaming can sway public opinion, reducing public support for existing climate policy; however, the subsequent deployment of government counter-rhetoric to justify noncompliance with the Paris Agreement effectively erases these negative effects. Our results show that by deploying four different tailored narratives common in the repertoire of Global South environmental diplomacy (historical responsibilities, reciprocity as effectiveness, reciprocity as self-interest, and defiance), incumbents can eliminate the audience costs of failing to honor the agreement. The effects we find are robust across various demographic and socio-political subgroups, suggesting that employing climate shaming as a compliance mechanism is less effective than previously thought. These findings underscore the ongoing challenges of fostering cooperation to manage the current climate crisis in a politically diverse world.

*Professor of Politics and International Relations, FGV.
†PhD. Student, Department of Political Science, Vanderbilt University.
‡PhD. Student, Sanford School of Public Policy, Duke University.

1 Introduction

Limiting the increase in global average temperature is one of the great political challenges of our time. In 2015, the Paris Agreement established a framework to encourage and track progress toward curbing global warming, with participating countries outlining voluntary commitments to reduce greenhouse gas emissions. Without legally binding obligations or punitive measures, the agreement relies heavily on international peer pressure to foster cooperation and prevent states from defecting from collective efforts (Dannenberg et al. 2023; Falkner 2016). Peer pressure may impose costs on deviant behavior through social condemnation and material sanctions, which can in turn trigger domestic political mobilization in the target state (e.g., Davis, Murdie and Steinmetz 2012; Risse et al. 1999; Terman and Voeten 2018). Yet, this compliance mechanism is far from foolproof. Governments facing external criticism can craft counter-narratives, framing foreign pressure as an infringement on national sovereignty and invoking appeals to national interests to justify their non-compliance (e.g., Morse and Pratt 2022; Williamson and Malik 2021).

Recent studies in advanced democracies in the West show that climate shaming under the framework of the Paris Agreement can effectively bolster domestic public support for compliance, despite leaders' attempts to neutralize the critique. Even where heads of government employ counter-rhetoric to justify their non-complying policies, such efforts tend to be largely ineffective in mitigating the domestic audience costs of foreign shaming (Koliev, Page and Tallberg 2022; Tingley and Tomz 2022). To date, however, it remains unclear whether these dynamics also hold in the non-Western world, where historical grievances in the climate sphere may shape responses to international pressure differently.[1]

In this study, we explore whether the dynamics of climate shaming seen in the West extend to the Global South, where perceptions of unequal treatment play a crucial role in shaping responses to international pressure. Political leaders in many of these nations of-

[1]While experimental research on shaming effects in the Global South remains limited, a recent study by Calacino (2024) stands out as a notable exception. Consistent with our narrative and findings, Calacino (2024) highlights the challenges of using shaming as an effective tool for climate action in the Global South.

ten tap into public concerns about historical subordination and global power asymmetries, framing foreign climate shaming as an illegitimate imposition by wealthier nations. This narrative portrays global climate governance as perpetuating double standards, with powerful countries evading responsibility while weaker states bear disproportionate burdens. As a result, such perceptions deeply influence how global climate norms are received. Given that many of the largest greenhouse gas emitters are in the Global South and that these nations face the most severe consequences of climate change (UNFCCC 2022), understanding their responses to international pressure is critical. The success of the Paris Agreement hinges on how effectively these states are engaged in global efforts to curb emissions.

Our analysis draws on new data from two survey experiments administered to over 6,000 respondents in Brazil. More specifically, we tackle three questions building on previous shaming research in the West (Koliev, Page and Tallberg 2022; Tingley and Tomz 2022): Does foreign shaming generate audience costs for noncompliance? Are these costs influenced by the degree of noncompliance? And can government counter-narratives diminish the impact of shaming? To address the last question, we examine four counter-rhetorical strategies that recur across the Global South: historical but differentiated responsibilities, reciprocity as effectiveness, reciprocity as self-interest, and defiance.

In so doing we are informed by some theoretical expectations. First, we hypothesize that foreign climate shaming will generate political costs for governments in the Global South that fail to comply with the Paris Agreement. Second, we expect these costs to vary depending on the degree of noncompliance, with partial noncompliance making governments more vulnerable to shaming, while complete noncompliance is less likely to shift public opinion since domestic audiences are likely already resigned to their government's lack of action. Third, we anticipate that leaders in the Global South will be more successful than their counterparts in the Global North at mitigating the political costs of foreign shaming through strategic counter-rhetoric. Given the deeper historical narratives of injustice and global hierarchies in the Global South, we expect domestic audiences to be more receptive

to leaders framing foreign pressure as an unfair imposition, thereby reducing the impact of shaming.

We field our survey experiments in Brazil, an ideal setting to study climate shaming dynamics in the Global South. As a leading carbon emitter exerting sovereign authority over vast tracts of the Amazon – the planet's largest tropical forest – Brazil has long attracted international criticism over its environmental policies (Hurrell 1991). Voters are highly concerned about climate change,[2] and society features a robust social consensus around the reality of the climate crisis (Spektor, Fasolin and Camargo 2023) and its associated risks (Fasolin et al. 2023). Moreover, free and independent media ensures that information about adherence to the Paris Agreement is available and visible to the public, while a proactive civil society publicizes instances of non-compliance, organizing protests and applying pressure on incumbents (Hochstetler and Keck 2007). In response to foreign criticism, successive Brazilian leaders have consistently employed rhetorical strategies, invoking the argument of sovereignty infringement and leveraging the idea that international environmental norms are skewed in favor of powerful nations at the expense of developing countries (Viola and Franchini 2017).

Our experimental results reveal a stark divergence between how publics in the Global South and the West respond to foreign climate shaming. Consistent with research in the West (e.g., Tingley and Tomz 2022), our findings show that shaming generates audience costs only in cases of partial compliance. However, unlike in advanced democracies, we find that incumbent counter-rhetoric in the Global South completely neutralizes the domestic political costs of shaming. Skillfully crafted messages by political leaders not only deflect external pressure but also realign public sentiment with government policy, effectively insulating incumbents from international accountability. This finding challenges prevailing assumptions about the power of climate shaming as a tool for enforcing global cooperation. It underscores the limits of external pressure in the Global South, where strategic framing by leaders allows

[2]Yale Program on Climate Change Communication - Brazil's Report (2022). `https:https://climatecommunication.yale.edu/publications/climate-change-in-the-brazilian-mind/.`

governments to resist global climate norms without facing substantial domestic backlash.

2 The Politics of Noncompliance

Political scientists have long debated whether and how shaming-based enforcement mechanisms lead to compliance. One view links the presence of external pressure to the rise of domestic constraints on political leaders (e.g., Keck and Sikkink 1998; Risse et al. 1999; Simmons 2009). According to this perspective, foreign shaming can inform, persuade, and sensitize domestic audiences to the social and material costs of non-compliance, prompting them to demand internationally cooperative policies from their leaders. A contrasting view warns that foreign shaming can invite popular backlash against critics and their messages, reducing rather than increasing domestic support for compliance with international commitments (e.g., Hafner-Burton 2008; Snyder 2020; Terman 2019, 2023).

While earlier debates centered on whether shaming drives compliance or triggers backlash, more recent research shifts the conversation toward how governments strategically respond. Scholars now examine the role of counter-rhetoric, where leaders actively reshape public perception by framing foreign pressure as illegitimate. This approach focuses on (how) whether leaders neutralize external critiques and reduce the political costs of non-compliance (e.g., Morse and Pratt 2022; Tingley and Tomz 2022; Williamson and Malik 2021). By doing so, they undermine the effectiveness of international pressure in generating audience costs, fundamentally altering the dynamics of compliance (Dixon 2017; Morse and Pratt 2023).

Applying these ideas to the climate sphere underscores that the success of the Paris Agreement rests on two key factors: the capacity of international peer pressure to shape domestic public opinion in favor of compliance and the inability of noncompliant leaders to effectively dismiss this pressure as unwarranted (Dannenberg et al. 2023; Falkner 2016). Empirical evidence from advanced democracies offers optimism. A study in the United States reveals that shaming effectively moves public opinion in favor of compliance, and it is most

effective when governments exhibit partial noncompliance (rather than complete noncompliance). The study also highlights that of the two counter-rhetorical strategies—regret and defiance—only regret slightly mitigates the political costs of noncompliance, while defiance has virtually no impact (Tingley and Tomz 2022). Similarly, research in Sweden demonstrates that climate shaming shifts public opinion decisively toward compliance, with leader counter-rhetoric proving largely ineffective at blunting this effect (Koliev, Page and Tallberg 2022). These findings suggest that at least in advanced democracies, foreign shaming exerts real pressure on leaders to align with international norms, despite attempts to counteract it.

We build on these studies to assess whether similar dynamics apply in the Global South, where concerns about historical injustice and global inequality may complicate the reception of climate shaming and increase the effectiveness of counter-rhetoric. We first hypothesize that foreign shaming will influence public opinion in favor of compliance, drawing from evidence that international pressure can shift domestic attitudes by highlighting the reputational and material costs of noncompliance. Even without direct sanctions, shaming may mobilize public demand for more cooperative environmental policies, as domestic audiences become more attuned to the risks of undermining international commitments. This aligns with broader findings that leaders are vulnerable to inconsistency costs when they fail to uphold international promises (e.g., Chaudoin 2014), and that public aversion to breaking treaty obligations can deter states from abandoning global climate accords (e.g., Casler, Clark and Zucker 2023). Additionally, research validating audience cost theories in non-Western contexts, such as Brazil (Bassan-Nygate et al. 2023), supports our expectation that similar patterns will emerge in the Global South.

Second, we anticipate that shaming will have a stronger impact in cases of partial adherence to the Paris Agreement compared to complete noncompliance (Tingley and Tomz 2022). Partial compliance signals that the government has the capacity to do more but chooses not to, thereby enhancing the credibility and legitimacy of external criticism. In contrast, with total noncompliance, domestic audiences are likely already critical of their government's in-

action, leaving less room for additional damage. As a result, shaming is less effective in shifting public opinion when the behavior is already perceived as wholly unacceptable.

Third, we argue that incumbent leaders in the Global South can effectively counteract international pressure through strategic counter-rhetoric. Unlike findings from the West (Koliev, Page and Tallberg 2022; Tingley and Tomz 2022), we expect leaders in the Global South to be more effective at mitigating the political costs of noncompliance. Domestic audiences in these regions may be particularly receptive to narratives that challenge foreign shaming, especially regarding adherence to the Paris Agreement. This stems from the distinctive political context of the Global South, where public perceptions of global environmental governance are intertwined with concerns about fairness and justice (Dooley et al. 2021; Klinsky et al. 2017). Sensitivity to issues of burden-sharing (Powers et al. 2022), coupled with a history of perceived subordination, allows leaders to frame foreign criticism as illegitimate external imposition (Edwards et al. 2023; Hurrell and Sengupta 2012; Roberts and Parks 2006). This rhetorical strategy enables leaders to justify noncompliance and reframe it as a defensible, even principled, stance.

Latent concerns about fairness, burden-sharing, and historical responsibility may be widespread in the Global South, but they still require activation by elites to influence public opinion in specific policy debates. This is because these issues are not always at the forefront for citizens—incumbents play a crucial role in bringing them to the surface. These concerns become salient only when leaders strategically invoke them to frame government policies or describe international agreements. By activating these narratives, elites make them more immediately relevant, shaping public opinion and reducing the political costs of noncompliance. This rhetorical maneuver allows leaders to align noncompliance with public sentiment, effectively mitigating the audience costs typically associated with defying international commitments.

To test these ideas, we empirically examine four narratives that are prominent in the real-world diplomatic repertoire of the Global South: historical but differentiated responsi-

bilities, reciprocity as effectiveness, reciprocity as self-interest, and defiance (e.g., Edwards et al. 2023; Klinsky et al. 2017; Spektor, Mignozzetti and Fasolin 2022; Tingley and Tomz 2020, 2022). With the exception of defiance, which takes a strong stance against foreign shaming, these narratives typically serve to highlight justice concerns in international climate cooperation, not to obstruct it. These strategies, when effectively deployed, provide leaders with a toolkit to mitigate the domestic political costs of noncompliance by framing it as a justifiable response to global imbalances. This makes them particularly appealing, as they enable leaders to justify noncompliance without ever explicitly advocating for the abandonment of the Paris Agreement. By leveraging these narratives, Global South leaders can present noncompliance as a reasonable policy, embedding it within broader criticisms of global power imbalances and calls for fairness in environmental diplomacy. These types of strategy shift public focus from leader performance, casting some international legal commitments as inappropriate (Morse and Pratt 2023).

Several factors could enhance the efficacy of the four counter-rhetorical options in reducing the domestic political costs of foreign criticism. Elite narratives are significantly more persuasive when they resonate with the beliefs and worldviews of the target audience (Chong and Druckman 2007; Druckman 2022), suggesting that aligning the message with prevailing social values and motivations can diminish the impact of foreign criticism. Furthermore, counter-rhetorical narratives gain traction when they express some form of elite consensus, in particular when it comes to shaping public preferences in complex areas such as international cooperation (e.g. Guisinger and Saunders 2017). Although we lack direct empirical evidence for widespread elite and public consensus around all four narratives, anecdotal evidence strongly suggests their broad adoption across a diverse range of cases and political contexts (e.g., Edwards et al. 2023; Viola and Franchini 2017). In addition, the strategic use of negative framing—such as focusing on global environmental cooperation's inequities—can also bolster public support for noncompliance, as negativity tends to elicit stronger reactions (e.g. Robertson et al. 2023; Soroka, Fournier and Nir 2019). This effect is especially impor-

tant in political persuasion, where negativity stands out amidst competing messages (e.g., Arceneaux 2012).

The remainder of this section delves into each rhetorical construct in turn, examining their conceptual underpinnings and illustrating the role they can play in the discursive justification of noncompliance under the Paris Agreement.

2.1 Historical Responsibilities

The principle of common but differentiated responsibilities (CBDR) in the climate context posits that while all countries are accountable for addressing climate change, developed nations should take on a larger share of the burden due to their historical emissions and greater economic capacity (Falkner 2021; Hurrell and Sengupta 2012). President Lula of Brazil puts it like this, "One cannot talk about [protecting tropical forests] without addressing the historical responsibility of the developed countries. They are the ones who, over the centuries, have most depleted natural resources and polluted the planet. The richest 10 percent of the world's population hold more than 75 percent of the wealth and emit almost half of all the carbon released into the atmosphere. There will be no sustainability without justice."[3]

We expect "historical responsibilities" to provide a potent basis for counter-rhetoric by leaders in noncompliance with their commitments under the Paris Agreement. Scholars have shown differentiated levels of responsibility to decrease public willingness to engage in climate mitigation efforts (Kline et al. 2018), while climate treaties acknowledging past emissions receive greater public support (Bechtel and Scheve 2013). In addition, CBDR could prove persuasive in particular if global environmental politics are perceived by domestic audiences as perpetuating historical injustices. It could also foster a reduced sense of obligation among the public to comply with international climate pledges in nations with relatively small

[3]Speech by President Luiz Inácio Lula da Silva at the Amazon Summit in Belém, on August 9, 2023. Available at: https://www.gov.br/planalto/pt-br/acompanhe-o-planalto/discursos-e-pronunciamentos/2023/discurso-do-presidente-luiz-inacio-lula-da-silva-na-cupula-da-amazonia-e-paises-convidados-em-belem-pa"

historical emissions (Tingley and Tomz 2020, 1152).

2.2 Reciprocity

Reciprocity in climate politics refers to the idea that countries should make comparable efforts to reduce greenhouse gas emissions (Keohane and Victor 2011). To date, political scientists have examined reciprocity through the lens of cooperation. They have explored whether citizens are more inclined to endorse costly pro-climate policies if other nations are seen as contributing equitably (Bechtel and Scheve 2013; Bechtel, Scheve and van Lieshout 2022). Additionally, they have investigated whether the expectation for reciprocal action is a significant determinant of public support for such policies (Aklin and Mildenberger 2020; Beiser-McGrath and Bernauer 2019; Mildenberger 2019). Here, we flip the coin by investigating how political leaders might strategically manipulate reciprocity arguments not to foster cooperation, but rather to justify defecting from it. Building upon this foundation, we test for two alternative reciprocity arguments.

2.2.1 Reciprocity as effectiveness

The concept of reciprocity as a source of effectiveness in international cooperation posits that successful collective action necessitates contributions from all parties involved (Bechtel, Scheve and van Lieshout 2022). This perspective is anchored in the understanding of climate change as a 'commons' dilemma, emphasizing that no single entity can offer an effective solution without collaborative efforts. For developing nations in the Global South, this perspective underscores that adequate climate finance is essential for their meaningful engagement in global efforts to reduce carbon emissions. In the words of President Cyril Ramaphosa of South Africa, "Africa is warming faster than the rest of the world. Of the 20 climate hotspots in the world, 17 are in Africa. Centuries after the end of the slave trade, decades after the end of colonial exploitation of Africa's resources, the people of our continent are once again bearing the cost of the industrialization and development of the

wealthy nations of the world. This is a price that the people of Africa are no longer prepared to pay (...) African countries, alongside other developing economy countries, need increased financial support to achieve their climate change goals."[4]

We anticipate "reciprocity as effectiveness" to offer a plausible foundation for leaders to justify their noncompliance with the Paris Agreement. This rhetorical option could prove persuasive because in confronting a problem requiring collective action, unilateral efforts to combat climate change can be seen as irrational or ineffective, prompting actors to shirk and let others shoulder the costs of action (Esty 1999). As a recent multi-country study shows, effectiveness beliefs strongly affect public support for climate cooperation (Bechtel, Scheve and van Lieshout 2022). Thus, we argue that leaders could justify partial or total noncompliance with international environmental pledges by stating that cooperation is futile when others do not participate, as individual country efforts at curbing carbon emissions alone are insufficient to achieve climate goals.

2.2.2 Reciprocity as self-interest

The notion of "reciprocity as self-interest" hinges on the idea that countries adhering to emission reduction commitments might become suckers in a competitive international system, while free riders reap benefits without incurring equivalent costs (Keohane and Victor 2011; Sunstein 2007). Leaders may use this perspective to argue that in the absence of proportional cost-sharing, unilateral action places their country at an economic or strategic disadvantage. As President Widodo Jakowi of Indonesia put it during negotiations in Paris in 2015: "The agreement may be binding, long-term, and ambitious, but not obstruct the development of developing countries".[5] This approach could potentially mitigate the domestic political costs of noncompliance with the Paris Agreement by positioning leaders as safeguarding their nation's economic and geopolitical interests in a competitive international system. Leaders

[4]Statement by Cyril Ramaphosa at the 78th UN General Assembly on September 19, 2023. Available at: https://gadebate.un.org/en/78/south-africa.

[5]Statement at the Climate Change Summit in Paris on 30 November 2015. Available at: https://setkab.go.id/en/president-jokowi-indonesia-commits-reducing-emission-by-29/

could frame their noncompliance as a strategic necessity.

2.3 Defiance

Defiance as a rhetorical construct manifests when leaders frame foreign criticism as an affront to national sovereignty (Terman 2019, 2023). In the climate sphere, leaders deploy defiance as a strategy of attack by arguing that the country they represent has an inalienable right to determine their own climate policies and that foreign critics are driven by ulterior motives, urging domestic audiences to reject the criticism (Tingley and Tomz 2022). This was exemplified by President Bolsonaro's response to the 2019 Amazon wildfires in Brazil: "We reject attempts to exploit environmental issues (...) as a means to benefit foreign political and economic interests, especially those disguised as good intentions. Instead of helping, [critics] behave disrespectfully and in a colonialist spirit. They have questioned what is most sacred to us: our sovereignty."[6]

Political leaders in the Global South could use defiance as a justification for noncompliance with the Paris Agreement by framing it as a defense of national sovereignty against perceived international overreach. Arguing that compliance threatens self-determination, especially when these commitments are seen as serving the interests of more developed nations, this stance could position them as protectors of national autonomy in a world where the strong often lay down the law on the weak. While previous research shows that defiant rhetoric is not effective in lessening the political costs of noncompliance with the Paris Agreement in the United States (Tingley and Tomz 2022), in the Global South, framing defiance as resistance to foreign imposition could potentially resonate with domestic audiences in countries where people are distinctively sensitive to issues of global power asymmetries.

To be sure, these four rhetorical devices do not exhaust the range of possibilities in the hand of political leaders. For example, other appealing narratives might include economic

[6]Speech by the President of the Republic, Jair Bolsonaro, during the Opening of the General Debate of the 74th Session of the United Nations General Assembly (UNGA) - New York/US. Retrieved from: `shorturl.at/dtKMY`.

development arguments, which prioritize growth and poverty alleviation over strict climate commitments; technological optimism, which emphasizes future innovations as solutions to climate challenges without immediate stringent measures; and environmental realism, which argues for pragmatic climate action based on national circumstances and capabilities. Although apologetic rhetoric is prevalent (Kitagawa and Chu 2021), we excluded it from our study due to recent experimental research in Brazil showing no significant effects for this type of justification (Spektor, Mignozzetti and Fasolin 2022).

3 Experimental Design

We tested our theoretical framework through two independent survey experiments conducted in Brazil. The first experiment involved 3,000 respondents in November 2022, and the second involved 3,166 respondents in January 2023. Participants were recruited through Netquest, an internet-based polling firm, which used quotas (age, education, gender, income, and region) to reflect the demographics of the population of Brazil.[7]

Our first experiment examined whether total non-compliance with the Paris Agreement affected the approval of government behavior and whether different counter-rhetoric strategies mitigated this impact. Subjects were randomly assigned to one of six groups: one group was informed that Brazil was non-compliant with the Paris Agreement, while another received the same message with the additional cue of foreign shaming. Comparing these groups allowed us to detect the effect of shaming on government approval. Additionally, participants were randomly assigned to four types of counter-rhetoric (historical responsibility, reciprocity, self-interest, or defiance) to explore whether these arguments weakened the impact of shaming, which served as the comparison group. In these conditions, all participants

[7]Netquest built its online panels through an opt-in recruitment method, randomly selecting respondents for survey invitations while adhering to population quotas. Recent studies using its online panel have been published in top journals, including *American Political Science Review* (Bush and Clayton 2022), *Journal of Politics* (Boas, Hidalgo and Toral 2021), *Comparative Political Studies* (Campello and Urdinez 2021), and *Nature Communications* (Spektor, Fasolin and Camargo 2023). The online appendix (1.1.1 and 1.2.1) presents information about the sample's descriptive statistics and comparison with Brazil's census population for both experiments.

received the same information about total non-compliance and shaming, with the only variation being the assigned counter-rhetoric. The second experiment followed the same design but focused on partial non-compliance, with identical conditions and comparison groups.

This experimental design closely mirrors Tingley and Tomz (2022)'s seminal study on climate shaming in the U.S. To conceptually replicate key concepts like non-compliance and shaming, we intentionally used similar vignette language where possible. However, we introduced differences by incorporating a broader range of counter-rhetoric that had more ecological and theoretical relevance to countries in the Global South and used different compliance benchmarks to reflect Brazil's real-world commitments under the Paris Agreement. This approach enhances comparability with existing experimental literature on the effects of climate shaming while ensuring that our design adapts to different regional contexts, particularly in the Global South.

The next section outlines our experimental design, including pre and post-treatment details and the exact vignettes for all conditions. To avoid redundancy, we provide an in-depth description of the experiment on total non-compliance, referred to as "Experiment 1", and highlight the partial compliance experiment ("Experiment 2") only when there are differences in vignette language. For a full description of Experiment 2, see Appendix Item 10.2.

3.1 Experimental Design 1: Total Noncompliance

We used a between-subjects post-test treatment and control group experimental design. The experiments proceeded as follows: participants first completed a set of pre-treatment demographic and attitudinal questions. These included questions on political ideology, national attachment, climate change concern, and views on international cooperation, political knowledge, and knowledge of the Paris Agreement.[8] Respondents then received factual background information about Brazil's membership in the Paris Agreement and its voluntary commit-

[8]The order of the questions was randomized across respondents. See the online appendix (item 10) for full question wording.

ment to reduce carbon emissions by 43% by 2030. Finally, they were asked to envision a hypothetical scenario in which the Brazilian government's compliance with the Agreement is evaluated in 2030.[9] All participants read the following excerpt:

> The Paris Agreement is an international agreement signed by 192 countries to address climate change. Each member state has pledged to rapidly reduce its carbon dioxide emissions. Brazil, as a signatory and a major emitter of carbon dioxide, has voluntarily pledged to lower its emissions by 43% by the year 2030. In the next screen, we will introduce a hypothetical scenario that a future Brazilian government might face in relation to the country's pledge under the agreement. Later, we will ask your opinion on the matter.

Having established this context, respondents were randomly assigned to one of six conditions: no shaming, foreign shaming, historical responsibilities, reciprocity as effectiveness, reciprocity as self-interest, and defiance.[10]

In the control condition, respondents learned about noncompliance without any mention to the occurrence of foreign shaming:

> *No Shaming*: In 2030, a panel of scientists concludes that Brazil has completely fulfilled its pledge under the Paris Agreement to reduce carbon dioxide emissions by 43%. The scientists assert that the policies and laws adopted over the years by the government of Brazil have reduced the country's carbon dioxide emissions by 43%.[11]

[9] Although we presented respondents with a hypothetical scenario, potentially raising questions about how participants respond to it, recent research on survey experiments suggests that there is no significant difference in participant reactions to hypothetical scenarios compared to real-world situations (Brutger et al. 2023).

[10] Please note that the online appendix includes tables displaying all treatment arms from Experiment 1 (1.1.1) and Experiment 2 (1.2.1). It also shows that various pre-treatment variables (e.g., education, sex, age, race, and income) are well-balanced across experimental conditions in both experiments (1.1.2 and 1.2.2).

[11] The vignette for the *partial compliance experiment* is the same, except that we now emphasize that Brazil has 'only partially' fulfilled its pledge, with the government reducing '9%' of carbon dioxide emissions.

In the foreign shaming condition, respondents read the same message about noncompliance with a mention to the subsequent occurrence of foreign shaming.

> *Foreign Shaming*: The panel's conclusion attracts international criticism against the government of Brazil. Many countries[12] assert that Brazil should feel ashamed for having done nothing[13] to reduce its carbon dioxide emissions and for violating the promises it made under the Paris Agreement.

We compared respondents in the shaming condition with those in the control condition to assess the causal effects of shaming on support for government policy.

In the remaining conditions, we examined the four counter-rhetorical narratives (historical responsibility, reciprocity, self-interest, or defiance) discussed in the theory section. All participants in these conditions receive identical information about total non-compliance and shaming, with the only variation being the randomly assigned type of counter-rhetoric. These counter-rhetorical devices were then compared to the foreign shaming condition to determine whether they could attenuate the impact of international criticism.

Our first counter-rhetoric is *historical responsibility*. The condition of historical responsibility argues noncompliance is justified due to Brazil's relatively small historical contribution to climate change.

> *Historical Responsibility*: The government of Brazil responds to the criticism by asserting that, historically, the country has been minimally responsible for the carbon dioxide emissions that cause climate change. After all, the majority of such emissions have been generated by wealthy and developed countries. For this

[12]We made a conscious choice not to test for the identity of the shamer, as previous research conducted in Brazil (Spektor, Mignozzetti and Fasolin 2022) and elsehwere (Tingley and Tomz 2022) found null effects. To eliminate the risk that individuals might tacitly infer some countries rather than others, we asked respondents what countries they would normally associate with foreign climate shaming, but none of associations were statistically significant (online appendix tables 24 and 38).

[13]In the shaming vignette for the *partial compliance experiment*, the only change in the paragraph is the use of the phrase that Brazil should be ashamed for having done 'so little' rather than 'done nothing,' replicating the language from the naming and shaming experiment by Tingley and Tomz (2022).

reason, Brazil does not feel obligated to fulfill its commitment under the Paris Agreement.

The *Reciprocity as Effectiveness* condition argues noncompliance is justified on the basis of a collective-action argument.

> *Reciprocity as Effectiveness*: The government of Brazil responds to the criticism by asserting that it will comply with the Paris Agreement only when other countries that are also major carbon dioxide emitters do the same. After all, if these other significant emitters fail to fulfill their pledges, the agreement will not be effective in averting the negative consequences of climate change on the environment and the global economy.

The *Reciprocity as Self-Interest* condition justifies noncompliance on a relative advantage argument.

> *Reciprocity as Self-Interest*: The government of Brazil responds to the criticism by asserting that it will comply with the Paris Agreement only when other countries that are also major carbon dioxide emitters do the same. After all, if these other significant emitters fail to fulfill their pledges, Brazil will be at a disadvantage in relation to them.

Last but not least, in the *Defiance* condition the incumbent justifies noncompliance by stating that third parties have no right to meddle in domestic affairs and by raising doubts as to their true motivations.

> *Defiance*: The government of Brazil responds to the criticism by asserting that other countries do not have the right to interfere in its domestic affairs. After all, the criticism from these countries serves as an excuse to try to exert control over Brazil and exploit its natural resources.

After reading each vignette, respondents first answered factual manipulation checks, which also served to assess their attention to the study (e.g., Kane and Barabas 2019).[14] We then measured respondent approval of government policy by asking: "Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?" Respondents selected among "approve strongly", "approve somewhat", "neither approve nor disapprove", "disapprove somewhat", and "disapprove strongly". For ease of interpretation, we converted the 5-point scale of government approval into a binary measure, where 1 represents respondents who "strongly" or "somewhat" approve, and 0 corresponds to the other response options.[15]

4 Results

4.1 Experiment 1 (Total Noncompliance)

We begin by estimating the average treatment effect (ATE) of public approval between the noncompliance and foreign shaming scenarios. Relative to participants in the noncompliance condition, our findings indicate that shaming has no significant effect (at the 5% significance level) on public approval for government policy. Specifically, shaming leads to an average decrease in government policy approval of -0.04 percentage points.

Although shaming did not affect public approval, it remains plausible that incumbent counter-rhetoric could prove beneficial in a noncompliance scenario. Providing explanations for such behavior might help alleviate the considerable disapproval levels. Therefore, we explore the potential of incumbent counter-rhetoric to mitigate the negative consequences of noncompliance in a scenario of shaming. Overall, we find that all incumbent counter-rhetorical devices improve public approval for government policy at the 5% significance

[14]When analyzing the data, we refrain from conditioning our analyses on respondents who correctly answered the comprehension questions to avoid post-treatment bias (e.g., Coppock 2019), although the conclusions remain substantially similar when we restrict the sample to respondents with correct answers.

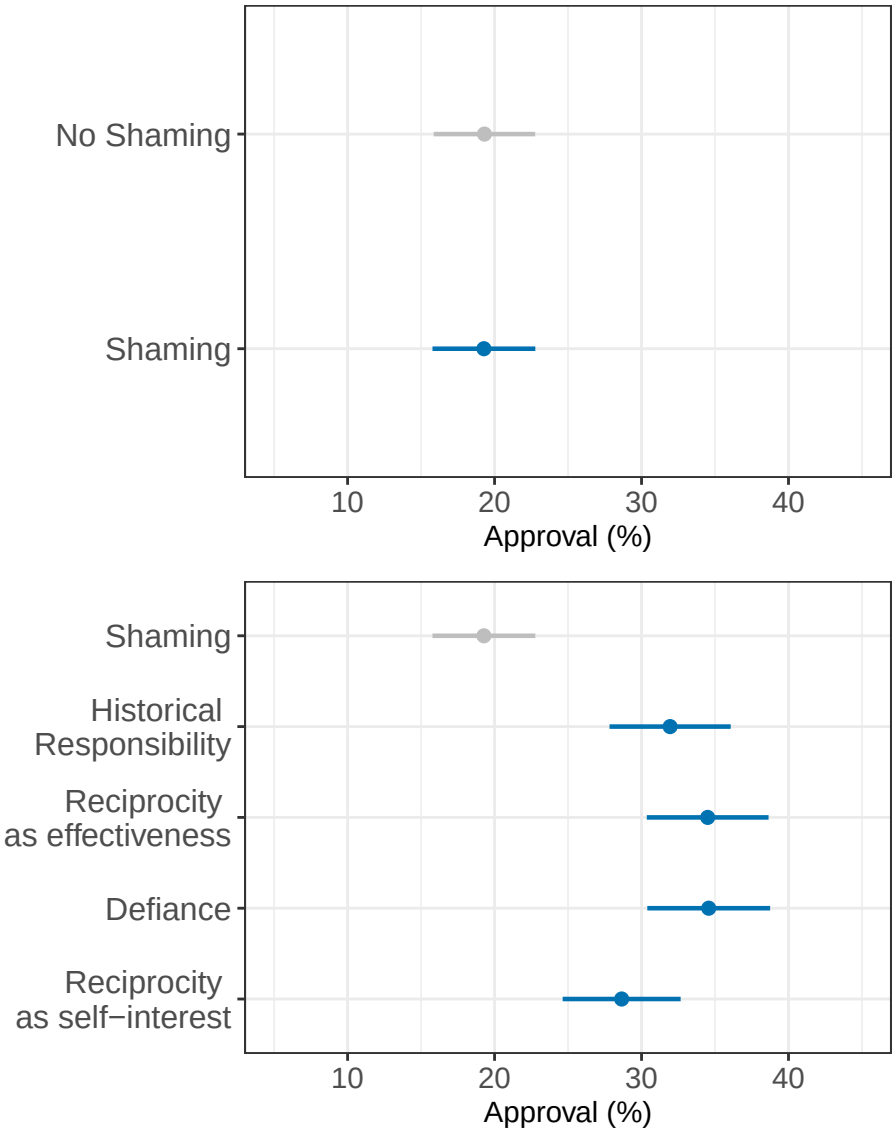
[15]In the online appendix (3.1.3 and 3.2.3) we show results remain consistent in the two experiments when we use a 5-point scale measure.

level, compared to the shaming scenario (Figure 1).[16] More specifically, exposure to the *historical responsibility* treatment increased participants' support for government policy, on average, by 12.7 percentage points (leading to an overall approval rate of 32.0%). Exposure to *reciprocity as effectiveness* and *defiance* treatments increased support by 15.2 and 15.3 percentage points, respectively (raising overall approval rates to 34.5% and 34.6%, respectively). Exposure to the *reciprocity as self-interest* treatment increased public approval by 9.4 percentage points on average (leading to an overall approval rate of 28.7%).[17]

[16]Complete regression results are available in online appendix item 2.1. In this analysis, we select the shaming scenario as the comparison condition. Notably, our findings remain largely consistent even when we use the absence of shaming as the comparison condition.

[17]In the online appendix 3.1.2, we performed a Benjamini-Hochberg test to adjust the p-values for multiple hypotheses tests. The results obtained from the adjusted p-values align with those from the standard p-values, and statistical significance remains largely unchanged after accounting for multiple hypotheses tests. All the results remain substantially similar whether the regression model includes theoretically relevant covariates (online appendix 3.1.1).

Figure 1. Public Support for Government Policy under Noncompliance



Note: This figure displays the approval percentage across treatment conditions. Estimates are weighted to adjust for sample representativeness. Baseline point estimates are shown in grey. The width of the confidence intervals is 95%.

4.2 Experiment 2 (Partial compliance)

Our second experiment examines whether the effects of foreign shaming vary in scenarios of partial compliance, and whether leaders' counter-rhetoric may mitigate domestic political costs associated with foreign shaming. In contrast to Experiment 1, here results show that

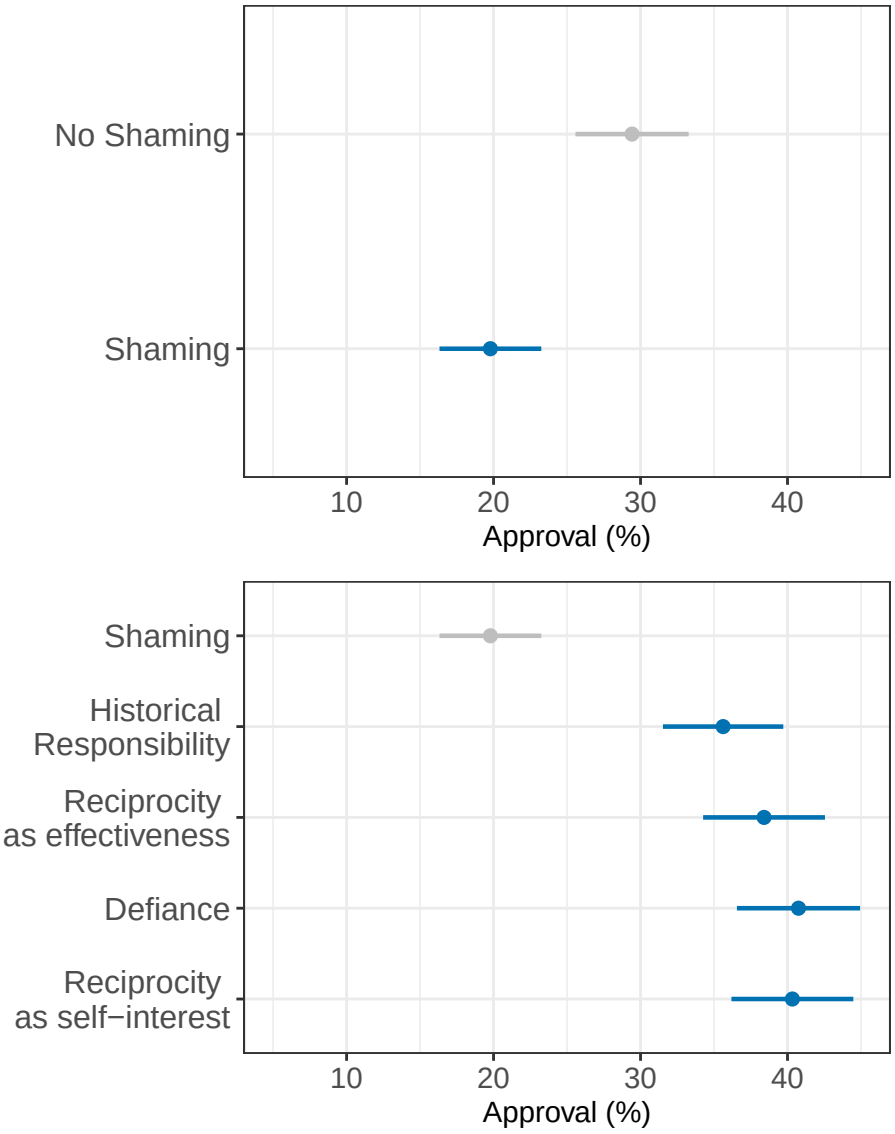
foreign shaming exerts a negative and statistically significant effect on support for government policy (Figure 2). In comparison to a condition of no shaming (29.4%), shaming eroded approval by 9.6 percentage points (at the 5% significance level), resulting in an approval level of 19.8%.

Having established that shaming substantially decreased the approval in a scenario of partial compliance, we now explore whether incumbent counter-rhetoric can mitigate or even reverse these negatives effects (Figure 2). When the government deploys *Historical responsibility*, there is an increase in approval by 15.8 percentage points (at the 5% significance level), raising overall approval for existing policy to 35.6%. The two versions of reciprocity counter-rhetoric are also effective at counteracting the negative effects of shaming. Policy approval increases by 15.2 and 20.5 percentage points when *Reciprocity as effectiveness* and *Reciprocity as self-interest* are employed (at the 5% significance level), resulting in an overall approval of existing policy at 35.0% and 40.3%, respectively. Finally, we find that *defiance* also counteracts the effects of shaming. Mean approval increases by 21 percentage points (at the 5% significance level) when the government employs defiance to contest the shaming directed towards the country.[18] Taken together, these results underscore the efficacy of counter-rhetoric in attenuating the costs associated with foreign shaming.[19]

[18] All the results remain significant after applying a Benjamini-Hochberg correction for multiple hypotheses (Online appendix 3.2.2), and accounting for the inclusion of control variables (Online appendix 3.2.1).

[19] Online Appendix item 2.2 provides the complete regression results.

Figure 2. Public Support for Government Policy under Partial Compliance



Note: This figure displays the approval percentage across treatment conditions. Estimates are weighted to adjust for sample representativeness. Baseline point estimates are shown in grey. The width of the confidence intervals is 95%.

4.3 Conventional Predictors Do Not Moderate the Treatment Effects

How individuals react to shaming and counter-rhetoric may depend on the strength and content of their prior beliefs about climate cooperation and political knowledge. Therefore,

a potential concern is that our findings are driven by the effects on a specific subgroup of respondents who hold relatively weak opinions on climate cooperation and display limited interest in politics overall. In such a scenario, it would not be surprising if these individuals were more susceptible to shifting their approval when exposed to shaming and counter-rhetorical narratives. To address this concern, we examined whether the primary treatment effects are moderated by variables associated with attitudes and preferences for international climate cooperation and political knowledge more generally. This analysis allows us to assess the robustness of the observed effects across respondents, ensuring that our findings are not unduly influenced by the weak attitudes of certain subgroups.

Research on climate change attitudes has shown that variables such as concern for climate change and a personal predilection for international cooperation are plausible predictors of support for international climate agreements (Bechtel and Scheve 2013; Koliev, Page and Tallberg 2022; Tingley and Tomz 2022). Moreover, research in political psychology suggests that politically sophisticated individuals are active processors of political information and possess the ability to counter-argue communications. As a result, they are better equipped to form more stable attitudes toward various issue-relevant objects (e.g., Jerit and Kam 2023; Kam 2005). In our study, we make use of measures of political knowledge in general and knowledge specifically related to the existence of the Paris Agreement to provide a fair representation of politically sophisticated individuals. Overall, it seems plausible that individuals who are more concerned about climate change, supportive of international cooperation, and knowledgeable about politics and the Paris Agreement might be more inclined to penalize the government when subjected to foreign shaming. Additionally, they may be less swayed by incumbent messages that attempt to justify non-compliant behavior. This could stem from a perception of foreign shaming as a relevant tool to exert pressure on their national government to fulfill its obligations under the Paris Agreement while viewing counter-rhetoric as a mere political tactic by the incumbent to alleviate the domestic costs associated with non-compliance.

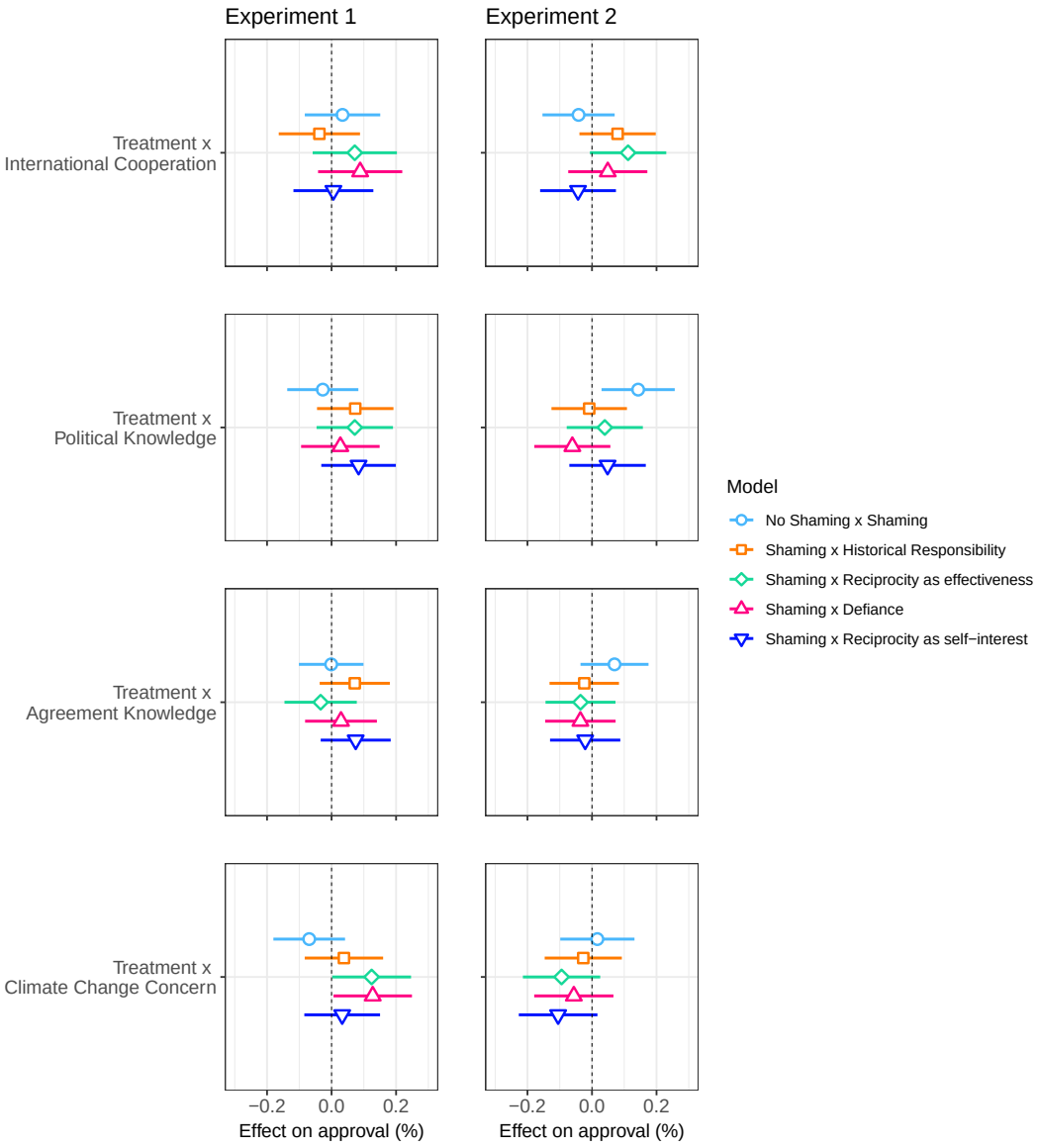
To examine whether these covariates moderate individuals' reactions to the stimulus, we tested for interactions between each covariate and each treatment condition.[20] The results from Conditional Average Treatment Effects (CATEs) indicate that none of the moderators emerge as statistically significant factors influencing the approval of government policy (at the 5% significance level), as illustrated in Figure 3.[21] These additional analyses reinforce the conclusion that our primary treatment effects are stable across a large set of theoretically and politically important subgroups.[22] This finding is consistent with a recent multi-country replication study in IR (Bassan-Nygate et al. 2023), which demonstrates low heterogeneity in treatment effects across various survey experiments on different topics.

[20]One potential concern in testing all these moderators is that they might be correlated, thus capturing the same underlying theoretical construct. However, in our study, this concern is mitigated as these moderators demonstrate weak correlations; none of the correlation coefficients exceeds 0.2.

[21]Tables containing these regressions can be found in the online appendix (sections 3.1.4 and 3.2.4).

[22]Several other moderator variables may potentially influence our primary treatment effects. The online appendix presents moderation analyses for other covariates such as education (see Table 14 in section 3.1.4 and Table 29 in section 3.2.4), political ideology (conservative/progressive, see Table 16 in section 3.1.4 and Table 30 in section 3.2.4), political ideology (right/left, see Table 17 in section 3.1.4 and Table 31 in section 3.2.4), and national attachment (see Table 18 in section 3.1.4 and Table 32 in section 3.2.4). However, none of these variables exhibit consistent interact effects that are statistically distinguished from zero at $p < .05$.

Figure 3. Public Approval for Government Policy - Moderators



Note: This figure displays the interaction coefficient between treatment and the conventional predictors across all treatment conditions in experiments 1 and 2. Estimates are weighted to adjust for sample representativeness. The width of the confidence intervals is 95%.

5 Discussion

In this study, we demonstrated that foreign climate shaming in the context of the Paris Agreement can be costly for a non-compliant government in the Global South. Mirroring findings from research in the West (Tingley and Tomz 2022), we revealed these costs emerge only in situations of partial compliance. Notably, however, our analysis also identified a new phenomenon: deployment of counter-rhetoric by political leaders can completely offset these costs. The consistency of these effects across various demographic and socio-political subgroups underscores a widespread receptivity to elite cues counteracting foreign shaming.

Our findings yield two significant contributions. First, we offer the first empirical evidence to date illustrating how key rhetorical constructs in global climate diplomacy - namely, historical responsibilities, reciprocity as efficiency, and reciprocity as self-interest - can be successfully deployed by political leaders who are under pressure from foreign critics. While political scientists in the past extensively examined how concepts like reciprocity and historical responsibilities influence support for international cooperation (Bechtel and Scheve 2013; Bechtel, Scheve and van Lieshout 2022; Beiser-McGrath and Bernauer 2019; Kline et al. 2018; Mildenberger 2019), here we show what valuable strategic communication tools they are for incumbents seeking to mitigate the domestic political costs that stem from foreign shaming. Prior experimental research specifically addressing defiance, for example, found negligible impact (Tingley and Tomz 2022), further highlighting the novelty of our findings.

Second, our results provide unique evidence of the importance of examining the consistency of IR theories in non-Western contexts (Bassan-Nygate et al. 2023; Colgan 2019). While we observe commonalities regarding domestic political costs (Tingley and Tomz 2022), we also identify significant differences in the effectiveness of leader counter-rhetoric in mitigating these costs. Our study, therefore, urges scholars to develop more nuanced explanations of the interplay between audience costs and elite cues across diverse settings. There are good theoretical reasons to suggest that the mechanisms underlying public opinion may manifest differently outside the Western industrialized world, where the majority of political science

evidence originates (Kertzer 2023).

While this paper has made significant strides, the question of why leader counter-rhetoric is so effective in Brazil remains fertile ground for further study. Citizens in the postcolonial world may be more acutely sensitive than those in the Global North to issues of justice, fairness, and autonomy. This heightened sensitivity could stem from perceptions that international environmental norms fail to recognize the unique challenges faced by poor and developing nations or that global environmental politics perpetuate Western hegemony at the expense of the developing world. Such concerns might make these individuals less likely to view non-compliance as a moral transgression or to see their country's reputation as compromised—factors typically shaping public support for compliance with international norms following shaming events (Risse et al. 1999; Simmons 2009).

This study also paves the way for examining the tangible political benefits leaders may gain from employing counter-rhetoric, such as boosts in approval ratings or electoral support, and the broader implications for policy outcomes. With U.S. evidence suggesting the influence of climate pledges on voter behavior (Casler, Clark and Zucker 2023), a comparative exploration in the Global South could reveal similar dynamics. Additionally, future research should investigate whether leaders' counter-rhetoric to minimize domestic costs of shaming contributes to increased environmental damage.

Future research could explore the interplay between leader counter-rhetoric and competing narratives, both domestically and internationally. This investigation would assess how well leader counter-rhetoric retains its persuasive power when confronted with counter-arguments advocating for environmental compliance or alternative views on environmental responsibilities. Existing literature suggests that while competing messages may weaken a narrative (Chong and Druckman 2007), they rarely nullify its influence entirely (Amsalem and Zoizner 2022; Druckman 2022). The significant impacts observed in our study imply this pattern is likely to hold. However, examining scenarios where counter-rhetoric faces opposition could deepen our understanding of the resilience of such narratives.

Brazil's unique context, where citizens have long faced foreign climate shaming, raises questions about the broader applicability of our findings. Brazilian citizens might be especially receptive to leader counter-rhetoric, viewing it as a valid defense against external critiques. Conversely, their frequent exposure to such criticism could lead to desensitization, reducing the issue's salience. This dichotomy highlights the need for further research across the Global South to explore these dynamics. Although generalizing our results poses challenges, shared experiences of environmental injustice and perceived unfairness (Roberts and Parks 2006; Timmons Roberts and Parks 2007) suggest similar outcomes may emerge in other Global South nations. We expect counter-rhetoric to be particularly effective in mitigating the domestic political costs of noncompliance in relatively powerful postcolonial states—such as India, Indonesia, Nigeria, the Philippines, and South Africa—where the intersection of carbon-intensive economies and geopolitical aspirations could amplify the impact of rhetorical rebuttals against foreign climate criticism.

Our results carry significant implications for policymakers considering climate shaming as a diplomatic tool. Using shaming tactics against countries in the Global South is risky. These nations often cannot unilaterally withdraw from international agreements, incentivizing their leaders to remain while publicly criticizing them. This risk is heightened in today's political climate, where adept leaders can easily manipulate public opinion to fuel discontent against international organizations, allowing counter-narratives to gain traction (Brutger and Clark 2023; Morse and Pratt 2022). Sustained rhetorical assaults on international norms and institutions by nation-states can erode the regimes they support (Morse and Keohane 2014). Therefore, the use of international peer pressure under the Paris Agreement must ensure that efforts to bolster compliance do not inadvertently undermine the agreement itself.

If the dynamics we identified in Brazil apply elsewhere, the unintended consequences of foreign climate shaming should be a major concern. With Global South states comprising most members in international bodies like the United Nations Framework Convention on Climate Change (UNFCCC), their collective power heavily influences decision-making.

These nations, often advocating norms that challenge Western preferences, can sometimes constrain their actions (Hochstetler and Milkoreit 2014, 2015). Moreover, their growing carbon emissions and disproportionate vulnerability to severe climate change effects make their support crucial for the credibility and effectiveness of global environmental governance (Sengupta 2023). Therefore, ensuring that efforts to foster compliance with the Paris Agreement do not unintentionally drive noncompliance is imperative. This highlights the need to understand shaming dynamics across different geopolitical contexts to ensure a successful global response to the climate crisis.

For policymakers, our findings suggest that ensuring compliance with the Paris Agreement across the Global South may require crafting targeted messages that acknowledge political sensitivities and preemptively counter the four key narratives we identified. First, leaders often invoke 'historical responsibilities,' arguing that developed nations should bear a greater burden due to their historical emissions. Global actors could counter this by emphasizing that the Paris Agreement explicitly acknowledges these imbalances and addresses them through the principle of 'common but differentiated responsibilities,' whereby developed nations take on a larger share of responsibility. Second, 'reciprocity as effectiveness' argues that individual efforts are futile without universal participation. In response, international messaging could highlight the significant actions most countries are already taking under the Agreement. Third, 'reciprocity as self-interest' frames compliance as an economic disadvantage while others free-ride. To counter this, global actors could underscore the material benefits of compliance, such as technological innovation and economic resilience. Finally, the 'defiance' narrative casts foreign pressure as an affront to national sovereignty. External actors can mitigate this by emphasizing that the Paris Agreement respects national autonomy by allowing each country to set its own goals for reducing greenhouse gas emissions, giving states the flexibility to design climate actions suited to their unique circumstances. If the international community is to prevent incumbents from justifying defection from the Paris Agreement, it must strategically adapt its messaging to effectively engage key audiences in

the Global South.

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Appendix

6 Sample Characteristics

6.1 Experiment 1: Non-compliance

6.1.1 Descriptive Statistics

Table 1. Distribution of respondents by treatment

Treatment	N
No Shaming	500
Shaming	501
Historical Responsibility	500
Reciprocity as effectiveness	500
Defiance	500
Reciprocity as self-interest	499
Total	**3000**

Notes: This table reports the number of respondents by treatment condition.

Table 2. Sample vs. population distribution by sex, age and country

	Brazil			
	(Sample)		(2019 PNAD)	
Age	**Male**	**Female**	**Male**	**Female**
18-24	6.2%	6.1%	6.2%	6.1%
25-34	9.6%	10.5%	9.8%	10.5%
35-44	9.7%	10.8%	9.9%	10.8%
45-59	12.4%	13.5%	12.0%	13.5%
60+	9.4%	11.7%	9.3%	11.8%
Total	47.3%	52.7%	47.3%	52.7%

Notes: This table reports the unweighted proportions for sex and age of all observations compared to the population. We used the 2019 Brazilian National Household Sample Survey (PNAD) for comparison.

Table 3. Summary statistics - Socio-demographic variables

Variable	N	Mean	Wt. Mean	2019 PNAD
Sex				
Male	1420	47.3%	49.3%	47.3%
Female	1580	52.7%	50.7%	52.7%
Age		43.7	40.8	
Region				
Center-West	233	7.8%	7.7%	7.3%
Northeast	794	26.5%	26.4%	26.6%
North	230	7.7%	8.0%	7.4%
Southeast	1305	43.5%	43.3%	43.8%
South	438	14.6%	14.7%	14.9%
Education				
Elementary (Primary) or less	1104	36.8%	32.5%	47.5%
High School or equivalent	1333	44.4%	48.9%	33.9%
Undergraduate or more	563	18.8%	18.6%	18.6%
Color				
White	1285	42.8%	42.1%	
Mestizo	18	0.6%	0.7%	
Indigenous person	38	1.3%	1.5%	
Pardo	1270	42.3%	42.2%	
Black	342	11.4%	11.8%	
Prefer not to answer	47	1.6%	1.8%	
Income Class				
A	81	2.7%	2.6%	2.5%
B	644	21.5%	21.4%	21.3%
C	1454	48.5%	47.2%	47.1%
D-E	821	27.4%	28.8%	28.7%

Notes: This table reports the unweighted and weighted proportions for the socio-demographic characteristics of the entire sample compared to the population. We used the 2019 Brazilian Nationalismal Household Sample Survey (PNAD) for comparison. Age is a continuous variable. Thus, the mean represents the average age of all observations.

6.1.2 Randomization Check

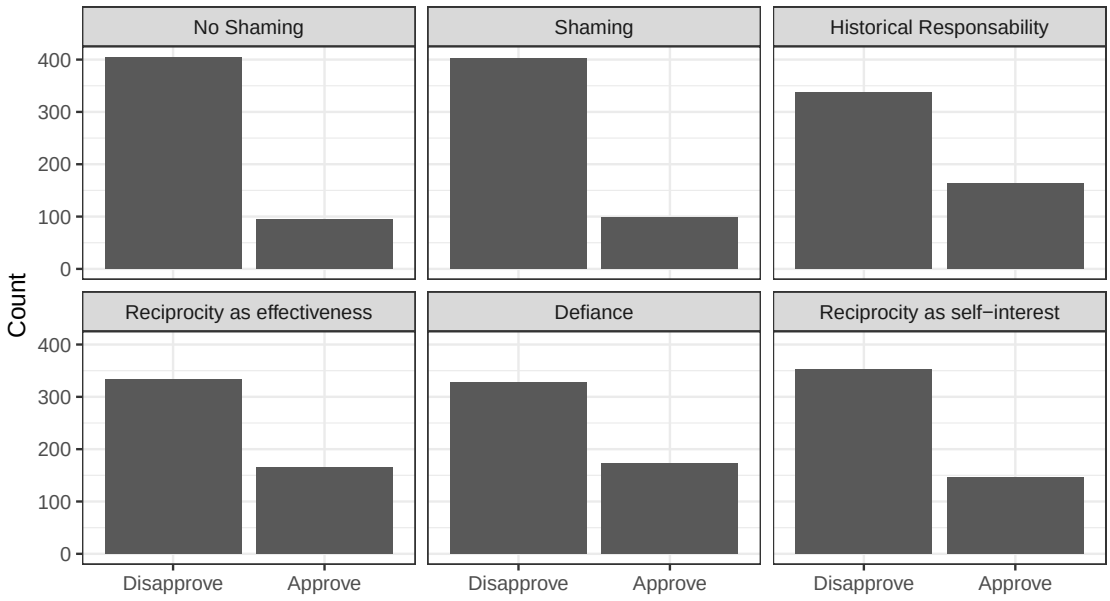
Table 4. Randomization Check

Dependent Variables:	Sex (1)	Age (2)	Education (3)	Color (4)	Income (5)
Treatment Condition					
No Shaming	-0.011	0.203	0.012	-0.039	-0.031
	(0.032)	(0.960)	(0.046)	(0.094)	(0.182)
Shaming	-0.024	0.683	0.029	-0.064	0.032
	(0.032)	(0.959)	(0.046)	(0.094)	(0.182)
Historical Responsibility	-0.007	0.473	0.0004	0.0010	0.147
	(0.032)	(0.960)	(0.046)	(0.094)	(0.182)
Reciprocity as effectiveness	-0.019	0.627	0.0004	0.035	-0.027
	(0.032)	(0.960)	(0.046)	(0.094)	(0.182)
Defiance	-0.013	0.013	0.018	0.079	0.123
	(0.032)	(0.960)	(0.046)	(0.094)	(0.182)
Constant	1.54***	43.4***	1.81***	2.52***	3.39***
	(0.022)	(0.679)	(0.032)	(0.067)	(0.129)
Fit statistics					
Observations	3,000	3,000	3,000	3,000	3,000
R^2	0.00024	0.00033	0.00023	0.00098	0.00060

Notes: This table presents the OLS estimates of treatment conditions on respondent characteristics. Reference baseline is Reciprocity as self-interest. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

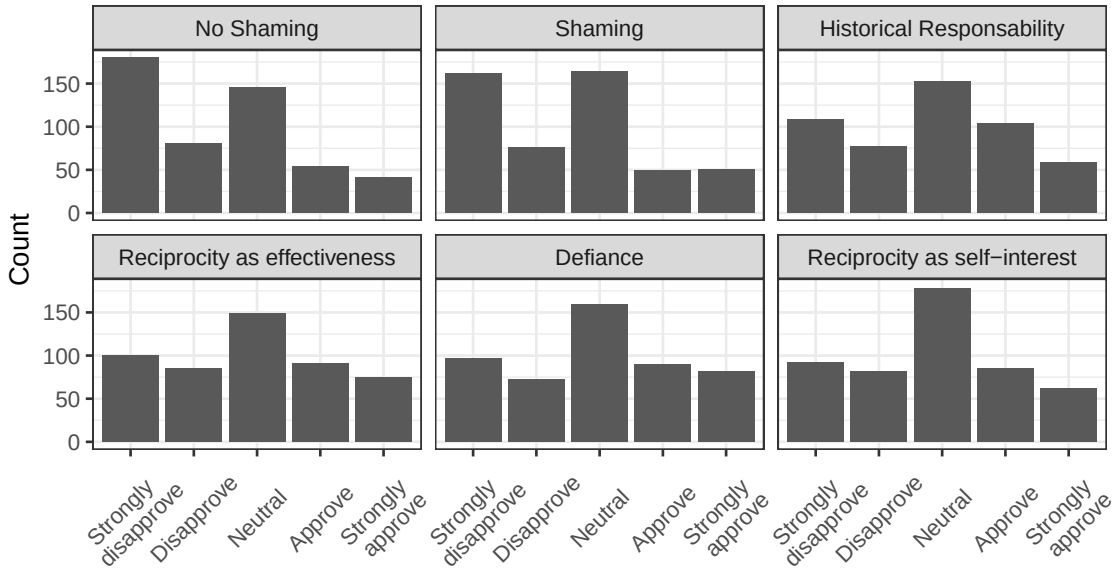
6.1.3 Dependent Variable Distribution

Figure 4. Approval distribution across treatment conditions (Binary)



Notes: This figure displays the approval (binary) distribution across each treatment group.

Figure 5. Approval distribution across treatment conditions (Continuous)



Notes: This figure displays the approval (continuous) distribution across each treatment group.

6.2 Experiment 2: Partial compliance

6.2.1 Descriptive Statistics

Table 5. Distribution of respondents by treatment

Treatment	N
No Shaming	524
Shaming	526
Historical Responsibility	526
Reciprocity as effectiveness	529
Defiance	530
Reciprocity as self-interest	531
Total	**3166**

Notes: This table reports the number of respondents by treatment condition.

Table 6. Sample vs. population distribution by sex, age and country

	Brazil			
	(Sample)		(2019 PNAD)	
Age	**Male**	**Female**	**Male**	**Female**
18-24	6.3%	6.0%	6.2%	6.1%
25-34	9.3%	10.7%	9.8%	10.5%
35-44	9.4%	11.1%	9.9%	10.8%
45-59	12.4%	13.5%	12.0%	13.5%
60+	9.4%	11.7%	9.3%	11.8%
Total	46.8%	53.2%	47.3%	52.7%

Notes: This table reports the unweighted proportions for sex and age of all observations compared to the population. We used the 2019 Brazilian National Household Sample Survey (PNAD) for comparison.

Table 7. Summary statistics - Socio-demographic variables

Variable	N	Mean	Wt. Mean	2019 PNAD
Sex				
Male	1485	46.9%	49.3%	47.3%
Female	1681	53.1%	50.7%	52.7%
Age		43.7	40.9	
Region				
Center-West	270	8.5%	8.5%	7.3%
Northeast	840	26.5%	26.5%	26.6%
North	269	8.5%	8.5%	7.4%
Southeast	1301	41.1%	41.2%	43.8%
South	486	15.4%	15.3%	14.9%
Education				
Elementary (Primary) or less	1112	35.1%	35.2%	47.5%
High School or equivalent	1384	43.7%	43.6%	33.9%
Undergraduate or more	670	21.2%	21.1%	18.6%
Color				
White	1400	44.2%	43.1%	
Mestizo	31	1%	0.9%	
Indigenous person	43	1.4%	1.5%	
Pardo	1315	41.5%	41.9%	
Black	340	10.7%	11.3%	
Prefer not to answer	37	1.2%	1.3%	
Income Class				
A	117	3.7%	3.7%	2.5%
B	674	21.3%	21.3%	21.3%
C	1481	46.8%	46.8%	47.1%
D-E	894	28.2%	28.3%	28.7%

Notes: This table reports the unweighted and weighted proportions for the socio-demographic characteristics of the entire sample compared to the population. We used the 2019 Brazilian National Household Sample Survey (PNAD) for comparison. Age is a continuous variable. Thus, the mean represents the average age of all observations.

6.2.2 Randomization Check

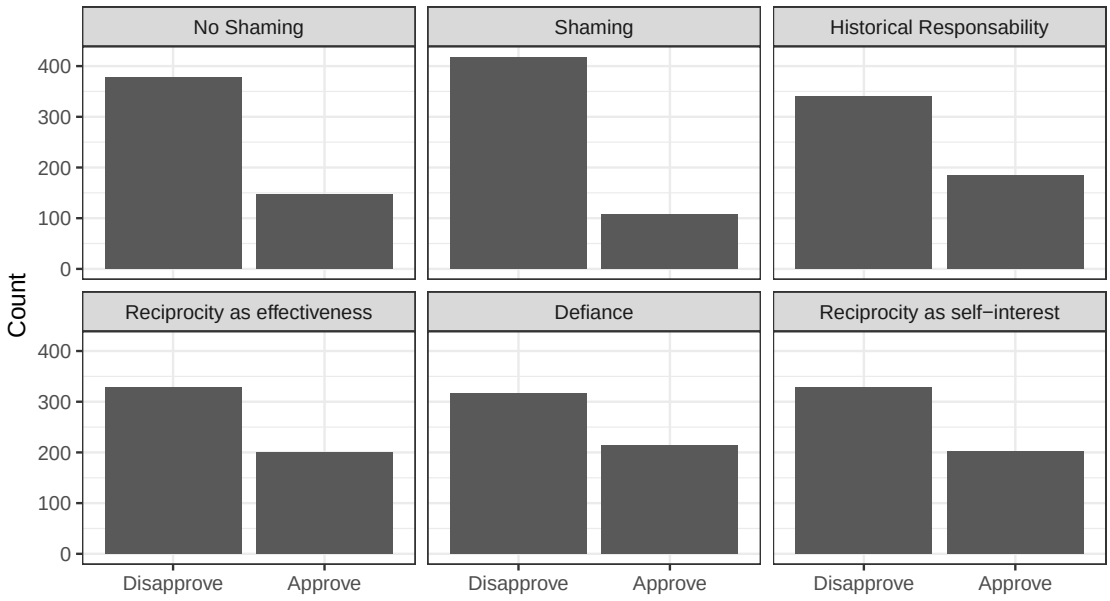
Table 8. Randomization Check

Dependent Variables:	Sex (1)	Age (2)	Education (3)	Color (4)	Income (5)
Treatment Condition					
No Shaming	0.009	0.231	-0.004	0.105	-0.183
	(0.031)	(0.938)	(0.045)	(0.091)	(0.179)
Shaming	0.009	0.292	0.002	0.023	-0.287
	(0.031)	(0.937)	(0.045)	(0.091)	(0.179)
Historical Responsibility	0.007	0.243	0.0006	0.088	-0.007
	(0.031)	(0.937)	(0.045)	(0.091)	(0.179)
Reciprocity as effectiveness	0.006	-0.009	-0.006	0.013	-0.111
	(0.031)	(0.935)	(0.045)	(0.091)	(0.179)
Defiance	0.003	0.295	0.005	0.020	-0.084
	(0.031)	(0.935)	(0.045)	(0.091)	(0.179)
Constant	1.53***	43.5***	1.86***	2.44***	3.61***
	(0.022)	(0.661)	(0.032)	(0.064)	(0.126)
Fit statistics					
Observations	3,166	3,166	3,166	3,166	3,166
R^2	0.0000	0.0000	0.0000	0.0007	0.0012

Notes: This table presents the OLS estimates of treatment conditions on respondent characteristics. Reference baseline is Reciprocity as self-interest. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

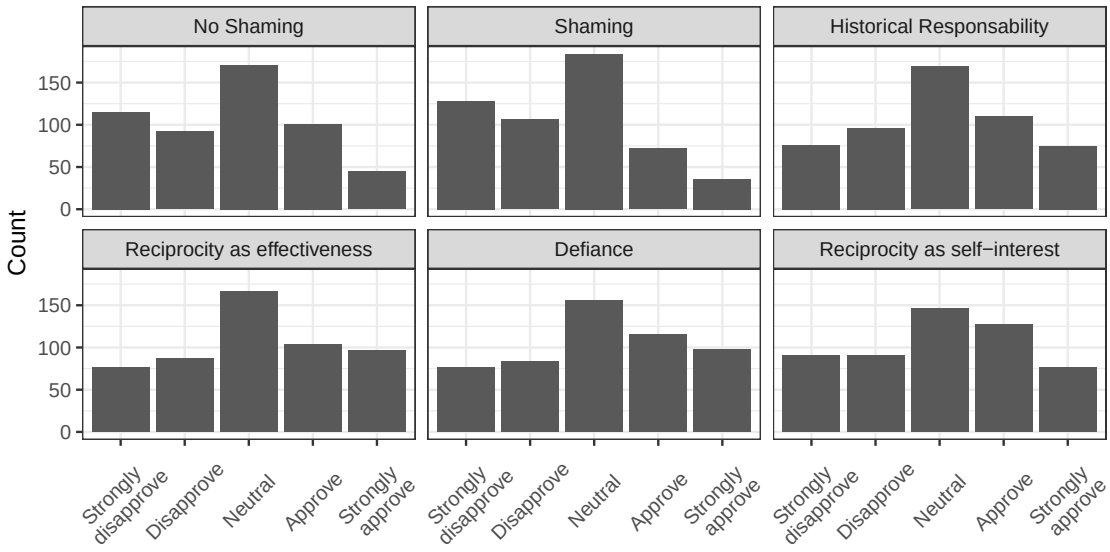
6.2.3 Dependent Variable Distribution

Figure 6. Approval distribution across treatment conditions (Binary)



Notes: This figure displays the approval (binary) distribution across each treatment group.

Figure 7. Approval distribution across treatment conditions (Continuous)



Notes: This figure displays the approval (continuous) distribution across each treatment group.

7 Treatment Effects

7.1 Experiment 1: Non-compliance

Table 9. Treatment Effects

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Treatments					
Shaming	-0.0004				
	(0.026)				
Historical Responsibility		0.127***			
		(0.029)			
Reciprocity as effectiveness			0.152***		
			(0.029)		
Defiance				0.153***	
				(0.029)	
Reciprocity as self-interest					0.094***
					(0.028)
Constant	0.193***	0.193***	0.193***	0.193***	0.193***
	(0.019)	(0.018)	(0.018)	(0.018)	(0.018)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00000	0.02106	0.02951	0.02971	0.01205

Notes: This table presents the OLS estimates of treatment conditions on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

7.2 Experiment 2: Partial compliance

Table 10. Treatment Effects

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Treatments					
Shaming	-0.096***				
	(0.028)				
Historical Responsibility		0.158***			
		(0.029)			
Reciprocity as effectiveness			0.152***		
			(0.029)		
Defiance				0.210***	
				(0.029)	
Reciprocity as self-interest					0.205***
					(0.029)
Constant	0.294***	0.198***	0.198***	0.198***	0.198***
	(0.021)	(0.018)	(0.018)	(0.018)	(0.018)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.01252	0.03130	0.04195	0.05204	0.05008

Notes: This table presents the OLS estimates of treatment conditions on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

8 Robustness Checks

8.1 Experiment 1: Non-compliance

8.1.1 Treatment Effects with Controls

Table 11. Treatment Effects with Socio-Demographic Controls

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Treatments					
Shaming	-0.001				
	(0.026)				
Historical Responsibility		0.128***			
		(0.028)			
Reciprocity as effectiveness			0.152***		
			(0.029)		
Defiance				0.152***	
				(0.029)	
Reciprocity as self-interest					0.096***
					(0.028)
Constant	0.432***	0.437***	0.562***	0.342***	0.322***
	(0.100)	(0.107)	(0.112)	(0.113)	(0.112)
Controls					
Socio-demographic	Yes	Yes	Yes	Yes	Yes
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.01180	0.04324	0.04653	0.04095	0.02595

Notes: This table presents the OLS estimates of treatment conditions on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Controls include sex, age, color, income class, region, education level. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 12. Treatment Effects with Full Set of Controls

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Treatments					
Shaming	0.003				
	(0.026)				
Historical Responsibility		0.121***			
		(0.027)			
Reciprocity as effectiveness			0.152***		
			(0.028)		
Defiance				0.161***	
				(0.028)	
Reciprocity as self-interest					0.103***
					(0.027)
Constant	0.425***	0.249*	0.465***	0.121	0.105
	(0.136)	(0.139)	(0.141)	(0.136)	(0.137)
Controls					
Full Set	Yes	Yes	Yes	Yes	Yes
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.06415	0.12528	0.09981	0.11724	0.10708

Notes: This table presents the OLS estimates of treatment conditions on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Controls include sex, age, color, income class, region, education level, political ideology, nationalism, international cooperation, knowledge and concern about climate change. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance:
* p<0.1; ** p<0.05; *** p<0.01.

8.1.2 Multiple Hypotheses Testing

Table 13. Benjamini-Hochberg adjusted p-values for multiple hypotheses testing

Model	Standard	Signif.	Adjusted	Signif.
Model 1	0.9881	-	0.9881	-
Model 2	< 0.001	***	< 0.001	***
Model 3	< 0.001	***	< 0.001	***
Model 5	< 0.001	***	< 0.001	***
Model 6	< 0.001	***	< 0.001	***

Notes: This table presents the standard and adjusted (Benjamini-Hochberg) p-values for each of the five main OLS models estimated without controls. Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.

8.1.3 Treatment Effects with Continuous Dependent Variable

Table 14. Treatment Effects - Approval (Continuous)

Dependent Variable:	Approval (Continuous)				
	(1)	(2)	(3)	(4)	(5)
Treatments					
Shaming	0.061				
	(0.085)				
Historical Responsibility		0.360***			
		(0.086)			
Reciprocity as effectiveness			0.494***		
			(0.086)		
Defiance				0.514***	
				(0.086)	
Reciprocity as self-interest					0.382***
					(0.083)
Constant	2.43***	2.49***	2.49***	2.49***	2.49***
	(0.059)	(0.061)	(0.061)	(0.061)	(0.061)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00057	0.01903	0.03490	0.03734	0.02255

Notes: This table presents the OLS estimates of treatment conditions on approval (continuous). Coefficients are increases in the approval scale (1-5) given each treatment relative to the average baseline (*Constant*). Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

8.1.4 Heterogeneous Treatment Effects

Table 15. Treatment Effects by Education Level

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
High School or equivalent	0.030	-0.006	-0.006	-0.006	-0.006
	(0.041)	(0.043)	(0.043)	(0.043)	(0.043)
Undergraduate or more	0.019	-0.051	-0.051	-0.051	-0.051
	(0.053)	(0.050)	(0.050)	(0.050)	(0.050)
Shaming	0.031				
	(0.044)				
Shaming × High School or equivalent	-0.036				
	(0.059)				
Shaming × Undergraduate or more	-0.070				
	(0.073)				
Historical Reciprocity		0.135***			
		(0.048)			
Historical Reponsibility × High School or equivalent		-0.011			
		(0.065)			
Historical Reponsibility × Undergraduate or more		-0.019			
		(0.077)			
Reciprocity as effectiveness			0.176***		
			(0.050)		
Reciprocity as effectiveness × High School or equivalent			-0.051		
			(0.066)		
Reciprocity as effectiveness × Undergraduate or more			0.002		
			(0.083)		
Defiance				0.093*	
				(0.048)	
Defiance × High School or equivalent				0.069	
				(0.064)	
Defiance × Undergraduate or more				0.135*	
				(0.081)	
Reciprocity as self-interest					0.084*
					(0.048)
Reciprocity as self-interest × High School or equivalent					-0.044
					(0.063)
Reciprocity as self-interest × Undergraduate or more					0.158*
					(0.082)
Constant	0.174***	0.205***	0.205***	0.205***	0.205***
	(0.030)	(0.033)	(0.033)	(0.033)	(0.033)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00171	0.02354	0.03211	0.03332	0.02220

Notes: This table presents the OLS estimates of treatment conditions interacted with education level on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Reference baseline for education is 'Elementary (Primary) or less'. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 16. Treatment Effects by Political Ideology (Conservative x Progressive)

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Conservative	-0.033	-0.011	-0.011	-0.011	-0.011
	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)
Shaming	-0.014				
	(0.042)				
Shaming × Conservative	0.022				
	(0.054)				
Historical Reponsibility		0.073*			
		(0.042)			
Historical Reponsibility × Conservative		0.105*			
		(0.057)			
Reciprocity as effectiveness			0.128***		
			(0.045)		
Reciprocity as effectiveness × Conservative			0.042		
			(0.059)		
Defiance				0.103**	
				(0.044)	
Defiance × Conservative				0.089	
				(0.058)	
Reciprocity as self-interest					0.055
					(0.042)
Reciprocity as self-interest × Conservative					0.071
					(0.057)
Constant	0.212***	0.199***	0.199***	0.199***	0.199***
	(0.031)	(0.029)	(0.029)	(0.029)	(0.029)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00095	0.02691	0.03017	0.03364	0.01462

Notes: This table presents the OLS estimates of treatment conditions interacted with political ideology (conservative x progressive) on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 17. Treatment Effects by Political Ideology (Left x Right)

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Right	0.006	0.118***	0.118***	0.118***	0.118***
	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)
Shaming	-0.048				
	(0.032)				
Shaming × Right	0.112**				
	(0.054)				
Historical Reponsibility		0.102***			
		(0.034)			
Historical Reponsibility × Right		0.075			
		(0.059)			
Reciprocity as effectiveness			0.142***		
			(0.035)		
Reciprocity as effectiveness × Right			0.032		
			(0.060)		
Defiance				0.120***	
				(0.035)	
Defiance × Right				0.090	
				(0.060)	
Reciprocity as self-interest					0.056*
					(0.033)
Reciprocity as self-interest × Right					0.102*
					(0.058)
Constant	0.191***	0.143***	0.143***	0.143***	0.143***
	(0.024)	(0.022)	(0.022)	(0.022)	(0.022)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.01101	0.05324	0.05201	0.06490	0.05342

Notes: This table presents the OLS estimates of treatment conditions interacted with political ideology (left x right) on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 18. Treatment Effects by Nationalism

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Nationalism	0.106***	0.043	0.043	0.043	0.043
	(0.036)	(0.038)	(0.038)	(0.038)	(0.038)
Shaming	0.043				
	(0.041)				
Shaming × Nationalism	-0.063				
	(0.053)				
Historical Reponsibility		0.078*			
		(0.047)			
Historical Reponsibility × Nationalism		0.072			
		(0.059)			
Reciprocity as effectiveness			0.059		
			(0.047)		
Reciprocity as effectiveness × Nationalism			0.135**		
			(0.059)		
Defiance				0.129***	
				(0.048)	
Defiance × Nationalism				0.036	
				(0.060)	
Reciprocity as self-interest					0.100**
					(0.047)
Reciprocity as self-interest × Nationalism					-0.010
					(0.059)
Constant	0.122***	0.165***	0.165***	0.165***	0.165***
	(0.027)	(0.031)	(0.031)	(0.031)	(0.031)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00930	0.03008	0.04805	0.03446	0.01391

Notes: This table presents the OLS estimates of treatment conditions interacted with nationalism on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 19. Treatment Effects by International Cooperation

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Intl. Cooperation	-0.041	-0.007	-0.007	-0.007	-0.007
	(0.048)	(0.044)	(0.044)	(0.044)	(0.044)
Shaming	-0.027				
	(0.058)				
Shaming × Intl. Cooperation	0.034				
	(0.065)				
Historical Reponsibility		0.155**			
		(0.061)			
Historical Reponsibility × Intl. Cooperation		-0.038			
		(0.069)			
Reciprocity as effectiveness			0.096		
			(0.060)		
Reciprocity as effectiveness × Intl. Cooperation			0.072		
			(0.069)		
Defiance				0.083	
				(0.060)	
Defiance × Intl. Cooperation				0.089	
				(0.069)	
Reciprocity as self-interest					0.089
					(0.058)
Reciprocity as self-interest × Intl. Cooperation					0.006
					(0.066)
Constant	0.225***	0.198***	0.198***	0.198***	0.198***
	(0.043)	(0.039)	(0.039)	(0.039)	(0.039)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00097	0.02207	0.03129	0.03254	0.01208

Notes: This table presents the OLS estimates of treatment conditions interacted with international cooperation support on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 20. Treatment Effects by Political Knowledge

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Political Knowledge	-0.007	-0.034	-0.034	-0.034	-0.034
	(0.043)	(0.038)	(0.038)	(0.038)	(0.038)
Shaming	0.008				
	(0.031)				
Shaming × Political Knowledge	-0.027				
	(0.057)				
Historical Responsibility		0.106***			
		(0.034)			
Historical Responsibility × Political Knowledge		0.073			
		(0.062)			
Reciprocity as effectiveness			0.131***		
			(0.035)		
Reciprocity as effectiveness × Political Knowledge			0.072		
			(0.063)		
Defiance				0.144***	
				(0.035)	
Defiance × Political Knowledge				0.027	
				(0.064)	
Reciprocity as self-interest					0.069**
					(0.034)
Reciprocity as self-interest × Political Knowledge					0.084
					(0.061)
Constant	0.195***	0.203***	0.203***	0.203***	0.203***
	(0.022)	(0.023)	(0.023)	(0.023)	(0.023)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00083	0.02251	0.03089	0.03037	0.01411

Notes: This table presents the OLS estimates of treatment conditions interacted with Political Knowledge (about Biden, the Amazon and Mercosul) on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 21. Treatment Effects by Paris Agreement Knowledge

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Paris Agreement Knowledge	0.126***	0.124***	0.124***	0.124***	0.124***
	(0.039)	(0.041)	(0.041)	(0.041)	(0.041)
Shaming	0.006				
	(0.030)				
Shaming × Paris Agreement Knowledge	-0.001				
	(0.056)				
Historical Reponsibility		0.090***			
		(0.033)			
Historical Reponsibility × Paris Agreement Knowledge		0.072			
		(0.060)			
Reciprocity as effectiveness			0.163***		
			(0.035)		
Reciprocity as effectiveness × Paris Agreement Knowledge			-0.034		
			(0.062)		
Defiance				0.138***	
				(0.034)	
Defiance × Paris Agreement Knowledge				0.029	
				(0.061)	
Reciprocity as self-interest					0.068**
					(0.032)
Reciprocity as self-interest × Paris Agreement Knowledge					0.075
					(0.061)
Constant	0.143***	0.149***	0.149***	0.149***	0.149***
	(0.022)	(0.021)	(0.021)	(0.021)	(0.021)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.02357	0.05486	0.04342	0.05293	0.04660

Notes: This table presents the OLS estimates of treatment conditions interacted with Paris Agreement Knowledge on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 22. Treatment Effects by Paris Agreement Support

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Paris Agreement Support	-0.048	-0.109**	-0.109**	-0.109**	-0.109**
	(0.044)	(0.043)	(0.043)	(0.043)	(0.043)
Shaming	0.041				
	(0.054)				
Shaming × Paris Agreement Support	-0.061				
	(0.062)				
Historical Responsibility		0.127**			
		(0.059)			
Historical Responsibility × Paris Agreement Support		0.003			
		(0.067)			
Reciprocity as effectiveness			0.096*		
			(0.057)		
Reciprocity as effectiveness × Paris Agreement Support			0.080		
			(0.066)		
Defiance				0.123**	
				(0.059)	
Defiance × Paris Agreement Support				0.047	
				(0.067)	
Reciprocity as self-interest					0.067
					(0.057)
Reciprocity as self-interest × Paris Agreement Support					0.040
					(0.065)
Constant	0.228***	0.269***	0.269***	0.269***	0.269***
	(0.039)	(0.038)	(0.038)	(0.038)	(0.038)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00939	0.03333	0.03625	0.03777	0.02136

Notes: This table presents the OLS estimates of treatment conditions interacted with Paris Agreement Support on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 23. Treatment Effects by Concern about climate change

Dependent Variable:	Concern about climate change (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Concern	0.023	-0.046	-0.046	-0.046	-0.046
	(0.042)	(0.044)	(0.044)	(0.044)	(0.044)
Shaming	0.050				
	(0.054)				
Shaming × Concern	-0.069				
	(0.062)				
Historical Responsibility		0.099			
		(0.060)			
Historical Responsibility × Concern		0.038			
		(0.068)			
Reciprocity as effectiveness			0.061		
			(0.059)		
Reciprocity as effectiveness × Concern			0.124*		
			(0.068)		
Defiance				0.060	
				(0.058)	
Defiance × Concern				0.128*	
				(0.067)	
Reciprocity as self-interest					0.070
					(0.058)
Reciprocity as self-interest × Concern					0.033
					(0.066)
Constant	0.176***	0.226***	0.226***	0.226***	0.226***
	(0.037)	(0.040)	(0.040)	(0.040)	(0.040)
Fit statistics					
Observations	1,001	1,001	1,001	1,001	1,000
R^2	0.00170	0.02222	0.03356	0.03411	0.01333

Notes: This table presents the OLS estimates of treatment conditions interacted with concern about climate change (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

8.1.5 Further Assessments

Table 24. Treatment and thinking of a specific country after exposure

Dependent Variables:	Country comes to mind? (1)
Treatment Condition	
Shaming	0.008
	(0.039)
Historical Responsibility	-0.028
	(0.038)
Reciprocity as effectiveness	-0.060
	(0.038)
Defiance	0.008
	(0.039)
Constant	0.419***
	(0.027)
Fit statistics	
Observations	2,103
R^2	0.00276

Notes: This table presents the OLS estimates of treatment conditions on the following binary question: "When we mentioned that several countries criticized Brazil, do you think of a specific country?". Reference baseline is Reciprocity as self-interest. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

8.2 Experiment 2: Partial compliance

8.2.1 Treatment Effects with Controls

Table 25. Treatment Effects with Socio-Demographic Controls

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Treatments					
Shaming	-0.096***				
	(0.028)				
Historical Responsibility		0.159***			
		(0.028)			
Reciprocity as effectiveness			0.187***		
			(0.029)		
Defiance				0.210***	
				(0.029)	
Reciprocity as self-interest					0.205***
					(0.029)
Constant	0.526***	0.411***	0.325***	0.210*	0.300**
	(0.120)	(0.120)	(0.123)	(0.122)	(0.121)
Controls					
Socio-demographic	Yes	Yes	Yes	Yes	Yes
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.02343	0.04776	0.05847	0.05638	0.06084

Notes: This table presents the OLS estimates of treatment conditions on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Controls include sex, age, color, income class, region, and education level. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 26. Treatment Effects with Full Set of Controls

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Treatments					
Shaming	-0.096***				
	(0.028)				
Historical Responsibility		0.150***			
		(0.028)			
Reciprocity as effectiveness			0.177***		
			(0.028)		
Defiance				0.202***	
				(0.028)	
Reciprocity as self-interest					0.200***
					(0.028)
Constant	0.540***	0.435***	0.251	0.317**	0.463***
	(0.147)	(0.151)	(0.155)	(0.158)	(0.160)
Controls					
Full Set	Yes	Yes	Yes	Yes	Yes
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.06630	0.10069	0.09540	0.11904	0.10632

Notes: This table presents the OLS estimates of treatment conditions on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Controls include sex, age, color, income class, region, education level, political ideology, nationalism, international cooperation, knowledge and concern about climate change. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

8.2.2 Multiple Hypotheses Testing

Table 27. Benjamini-Hochberg adjusted p-values for multiple hypotheses testing

Model	Standard	Signif.	Adjusted	Signif.
Model 1	< 0.001	***	< 0.001	***
Model 2	< 0.001	***	< 0.001	***
Model 3	< 0.001	***	< 0.001	***
Model 5	< 0.001	***	< 0.001	***
Model 6	< 0.001	***	< 0.001	***

Notes: This table presents the standard and adjusted (Benjamini-Hochberg) p-values for each of the five main OLS models estimated without controls. Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.

8.2.3 Treatment Effects with Continuous Dependent Variable

Table 28. Treatment Effects - Approval (Continuous)

Dependent Variable:	Approval (Continuous)				
	(1)	(2)	(3)	(4)	(5)
Treatments					
Shaming	-0.211***				
	(0.078)				
Historical Responsibility		0.452***			
		(0.078)			
Reciprocity as effectiveness			0.562***		
			(0.079)		
Defiance				0.581***	
				(0.080)	
Reciprocity as self-interest					0.472***
					(0.081)
Constant	2.79***	2.58***	2.58***	2.58***	2.58***
	(0.057)	(0.054)	(0.054)	(0.054)	(0.054)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.00760	0.03394	0.04992	0.05247	0.03496

Notes: This table presents the OLS estimates of treatment conditions on approval (continuous). Coefficients are increases in the approval scale (1-5) given each treatment relative to the average baseline (*Constant*). Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

8.2.4 Heterogeneous Treatment Effects

Table 29. Treatment Effects by Education Level

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
High School or equivalent	-0.005	-0.014	-0.014	-0.014	-0.014
	(0.049)	(0.040)	(0.040)	(0.040)	(0.040)
Undergraduate or more	-0.033	0.037	0.037	0.037	0.037
	(0.058)	(0.052)	(0.052)	(0.052)	(0.052)
Shaming	-0.107**				
	(0.048)				
Shaming × High School or equivalent	-0.009				
	(0.064)				
Shaming × Undergraduate or more	0.070				
	(0.078)				
Historical Responsibility		0.200***			
		(0.049)			
Historical Responsibility × High School or equivalent		-0.050			
		(0.065)			
Historical Responsibility × Undergraduate or more		-0.094			
		(0.080)			
Reciprocity as effectiveness			0.216***		
			(0.049)		
Reciprocity as effectiveness × High School or equivalent			-0.060		
			(0.065)		
Reciprocity as effectiveness × Undergraduate or more			-0.019		
			(0.082)		
Defiance				0.250***	
				(0.050)	
Defiance × High School or equivalent				-0.040	
				(0.066)	
Defiance × Undergraduate or more				-0.107	
				(0.081)	
Reciprocity as self-interest					0.178***
					(0.049)
Reciprocity as self-interest × High School or equivalent					0.068
					(0.065)
Reciprocity as self-interest × Undergraduate or more					-0.008
					(0.081)
Constant	0.303***	0.196***	0.196***	0.196***	0.196***
	(0.037)	(0.031)	(0.031)	(0.031)	(0.031)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.01390	0.03441	0.04683	0.05486	0.05230

Notes: This table presents the OLS estimates of treatment conditions interacted with education level on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Reference baseline for education is 'Elementary (Primary) or less'. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 30. Treatment Effects by Political Ideology (Conservative x Progressive)

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Conservative	-0.052	-0.023	-0.023	-0.023	-0.023
	(0.044)	(0.036)	(0.036)	(0.036)	(0.036)
Shaming	-0.116***				
	(0.044)				
Shaming × Conservative	0.029				
	(0.057)				
Historical Responsibility		0.179***			
		(0.043)			
Historical Responsibility × Conservative		-0.036			
		(0.058)			
Reciprocity as effectiveness			0.160***		
			(0.042)		
Reciprocity as effectiveness × Conservative			0.051		
			(0.058)		
Defiance				0.178***	
				(0.042)	
Defiance × Conservative				0.060	
				(0.058)	
Reciprocity as self-interest					0.243***
					(0.043)
Reciprocity as self-interest × Conservative					-0.069
					(0.058)
Constant	0.326***	0.210***	0.210***	0.210***	0.210***
	(0.035)	(0.026)	(0.026)	(0.026)	(0.026)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.01461	0.03378	0.04275	0.05317	0.05543

Notes: This table presents the OLS estimates of treatment conditions interacted with political ideology (conservative x progressive) on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 31. Treatment Effects by Political Ideology (Left x Right)

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Right	0.050	0.086**	0.086**	0.086**	0.086**
	(0.044)	(0.040)	(0.040)	(0.040)	(0.040)
Shaming	-0.108***				
	(0.034)				
Shaming × Right	0.036				
	(0.059)				
Historical Responsibility		0.137***			
		(0.034)			
Historical Responsibility × Right		0.044			
		(0.060)			
Reciprocity as effectiveness			0.166***		
			(0.034)		
Reciprocity as effectiveness × Right			0.055		
			(0.062)		
Defiance				0.197***	
				(0.035)	
Defiance × Right				0.034	
				(0.062)	
Reciprocity as self-interest					0.212***
					(0.035)
Reciprocity as self-interest × Right					-0.016
					(0.062)
Constant	0.275***	0.167***	0.167***	0.167***	0.167***
	(0.027)	(0.021)	(0.021)	(0.021)	(0.021)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.01867	0.04565	0.05713	0.06400	0.05672

Notes: This table presents the OLS estimates of treatment conditions interacted with political ideology (left x right) on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 32. Treatment Effects by Nationalism

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Nationalism	0.100**	0.072**	0.072**	0.072**	0.072**
	(0.043)	(0.036)	(0.036)	(0.036)	(0.036)
Shaming	-0.081*				
	(0.042)				
Shaming × Nationalism	-0.028				
	(0.056)				
Historical Responsibility		0.128***			
		(0.043)			
Historical Responsibility × Nationalism		0.050			
		(0.057)			
Reciprocity as effectiveness			0.138***		
			(0.045)		
Reciprocity as effectiveness × Nationalism			0.071		
			(0.058)		
Defiance				0.166***	
				(0.045)	
Defiance × Nationalism				0.067	
				(0.059)	
Reciprocity as self-interest					0.233***
					(0.046)
Reciprocity as self-interest × Nationalism					-0.044
					(0.059)
Constant	0.235***	0.154***	0.154***	0.154***	0.154***
	(0.032)	(0.027)	(0.027)	(0.027)	(0.027)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.02230	0.04304	0.05625	0.06540	0.05336

Notes: This table presents the OLS estimates of treatment conditions interacted with nationalism on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 33. Treatment Effects by International Cooperation

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Intl. Cooperation	0.018	-0.023	-0.023	-0.023	-0.023
	(0.045)	(0.040)	(0.040)	(0.040)	(0.040)
Shaming	-0.068				
	(0.050)				
Shaming × Intl. Cooperation	-0.042				
	(0.060)				
Historical Responsibility		0.101*			
		(0.054)			
Historical Responsibility × Intl. Cooperation		0.079			
		(0.064)			
Reciprocity as effectiveness			0.106**		
			(0.052)		
Reciprocity as effectiveness × Intl. Cooperation			0.112*		
			(0.063)		
Defiance				0.174***	
				(0.056)	
Defiance × Intl. Cooperation				0.049	
				(0.066)	
Reciprocity as self-interest					0.235***
					(0.054)
Reciprocity as self-interest × Intl. Cooperation					-0.043
					(0.064)
Constant	0.282***	0.214***	0.214***	0.214***	0.214***
	(0.036)	(0.034)	(0.034)	(0.034)	(0.034)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.01303	0.03314	0.04611	0.05260	0.05264

Notes: This table presents the OLS estimates of treatment conditions interacted with international cooperation support on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 34. Treatment Effects by Political Knowledge

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Political Knowledge	-0.126***	0.018	0.018	0.018	0.018
	(0.043)	(0.040)	(0.040)	(0.040)	(0.040)
Shaming	-0.138***				
	(0.034)				
Shaming × Political Knowledge	0.143**				
	(0.059)				
Historical Responsibility		0.161***			
		(0.034)			
Historical Responsibility × Political Knowledge		-0.009			
		(0.063)			
Reciprocity as effectiveness			0.175***		
			(0.034)		
Reciprocity as effectiveness × Political Knowledge			0.040		
			(0.064)		
Defiance				0.228***	
				(0.035)	
Defiance × Political Knowledge				-0.061	
				(0.063)	
Reciprocity as self-interest					0.192***
					(0.034)
Reciprocity as self-interest × Political Knowledge					0.048
					(0.064)
Constant	0.331***	0.193***	0.193***	0.193***	0.193***
	(0.026)	(0.021)	(0.021)	(0.021)	(0.021)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.02144	0.03150	0.04374	0.05314	0.05237

Notes: This table presents the OLS estimates of treatment conditions interacted with Political Knowledge (about Biden, the Amazon and Mercosul) on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 35. Treatment Effects by Paris Agreement Knowledge

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Paris Agreement Knowledge	0.096**	0.166***	0.166***	0.166***	0.166***
	(0.044)	(0.039)	(0.039)	(0.039)	(0.039)
Shaming	-0.122***				
	(0.033)				
Shaming × Paris Agreement Knowledge	0.070				
	(0.059)				
Historical Responsibility		0.164***			
		(0.034)			
Historical Responsibility × Paris Agreement Knowledge		-0.024			
		(0.059)			
Reciprocity as effectiveness			0.195***		
			(0.035)		
Reciprocity as effectiveness × Paris Agreement Knowledge			-0.036		
			(0.060)		
Defiance				0.219***	
				(0.036)	
Defiance × Paris Agreement Knowledge				-0.036	
				(0.060)	
Reciprocity as self-interest					0.208***
					(0.036)
Reciprocity as self-interest × Paris Agreement Knowledge					-0.021
					(0.060)
Constant	0.257***	0.134***	0.134***	0.134***	0.134***
	(0.026)	(0.020)	(0.020)	(0.020)	(0.020)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.03608	0.05982	0.06778	0.07726	0.07771

Notes: This table presents the OLS estimates of treatment conditions interacted with Paris Agreement Knowledge on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 36. Treatment Effects by Paris Agreement Support

Dependent Variable:	Approval (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Paris Agreement Support	-0.062	-0.025	-0.025	-0.025	-0.025
	(0.050)	(0.043)	(0.043)	(0.043)	(0.043)
Shaming	-0.124**				
	(0.057)				
Shaming × Paris Agreement Support	0.037				
	(0.066)				
Historical Responsibility		0.222***			
		(0.058)			
Historical Responsibility × Paris Agreement Support		-0.087			
		(0.066)			
Reciprocity as effectiveness			0.156***		
			(0.057)		
Reciprocity as effectiveness × Paris Agreement Support			0.040		
			(0.066)		
Defiance				0.235***	
				(0.059)	
Defiance × Paris Agreement Support				-0.035	
				(0.068)	
Reciprocity as self-interest					0.183***
					(0.059)
Reciprocity as self-interest × Paris Agreement Support					0.030
					(0.068)
Constant	0.341***	0.217***	0.217***	0.217***	0.217***
	(0.043)	(0.037)	(0.037)	(0.037)	(0.037)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.01481	0.03776	0.04236	0.05397	0.05038

Notes: This table presents the OLS estimates of treatment conditions interacted with Paris Agreement Support on approval (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

Table 37. Treatment Effects by Concern about climate change

Dependent Variable:	Concern about climate change (Binary)				
	(1)	(2)	(3)	(4)	(5)
Variables					
Concern	0.040	0.056	0.056	0.056	0.056
	(0.046)	(0.038)	(0.038)	(0.038)	(0.038)
Shaming	-0.108**				
	(0.050)				
Shaming × Concern	0.017				
	(0.060)				
Historical Responsibility		0.177***			
		(0.054)			
Historical Responsibility × Concern		-0.027			
		(0.063)			
Reciprocity as effectiveness			0.254***		
			(0.054)		
Reciprocity as effectiveness × Concern			-0.094		
			(0.064)		
Defiance				0.250***	
				(0.058)	
Defiance × Concern				-0.056	
				(0.067)	
Reciprocity as self-interest					0.282***
					(0.056)
Reciprocity as self-interest × Concern					-0.105
					(0.066)
Constant	0.266***	0.157***	0.157***	0.157***	0.157***
	(0.039)	(0.031)	(0.031)	(0.031)	(0.031)
Fit statistics					
Observations	1,050	1,052	1,055	1,056	1,057
R^2	0.01511	0.03333	0.04420	0.05356	0.05267

Notes: This table presents the OLS estimates of treatment conditions interacted with concern about climate change (binary). Coefficients are percentage points increases in the probability of approval given each treatment relative to the baseline. Reference baseline for model 1 is a *No Shaming* scenario, while the baseline for models 2-5 is a *Shaming* scenario. Estimates include weights to adjust for sample representativeness and standard errors are robust to heteroskedasticity. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

8.2.5 Further Assessments

Table 38. Treatment and thinking of a specific country after exposure

Dependent Variables:	Country comes to mind? (1)
Treatment Condition	
Shaming	0.009
	(0.035)
Historical Responsibility	0.069*
	(0.036)
Reciprocity as effectiveness	0.008
	(0.035)
Defiance	0.040
	(0.035)
Constant	0.348***
	(0.025)
Fit statistics	
Observations	2,103
R^2	0.00276

Notes: This table presents the OLS estimates of treatment conditions on the following binary question: "When we mentioned that several countries criticized Brazil, do you think of a specific country?". Reference baseline is Reciprocity as self-interest. Statistical significance: * p<0.1; ** p<0.05; *** p<0.01.

9 Questionnaire

9.1 Background Questions

9.2 Political Ideology

1. Nowadays, when we speak of political leanings, we talk of those on the left and those on the right. According to the meaning that the terms "left" and "right" have for you, and thinking of your own political leanings, where would you place yourself on a scale from "1" to "9", where "1" means closer to the left and "9" means closer to the right?
   1 - Left; 2; 3; 4; 5; 6; 7; 8; 9 - Right

2. In politics, people usually define themselves as 'progressive' or 'conservative'. How would you define your political point of view?
   Very progressive; Progressive; Conservative; Very conservative.

9.2.1 IR Questions

1. **Paris Agreement Knowledge**
   Have you heard of the Paris Agreement on climate change?
   Yes, and I support it; Yes, but I do not support it; No, but I think I would support it if I knew more about the agreement; No, but I think I would not support it if I knew more about the agreement.

2. **International Cooperation**
   Do you agree that Brazil is interested in cooperating with other countries even when this limits its freedom of action?
   Strongly agree; Somewhat agree; Neither agree nor disagree; Somewhat disagree; Strongly disagree.

3. **Climate Change Concern**

How worried are you about global warming?

Very worried; Somewhat worried; Not very worried; Not at all worried.

4. **Political Knowledge**

   We would like you to answer the following questions without consulting the internet or other sources.

   - Who is the president of the United States?

     Donald Trump; Emmanuel Macron; Joe Biden; Boris Johnson.

   - Which of the countries below does not have the Amazon rainforest?

     Colombia; Peru; Venezuela; Ecuador; Uruguay.

   - Which of the countries below is a member of Mercosur?

     Cuba; Colombia; Argentina; Peru.

5. **National Attachment**

10 Experimental Section

All the participants in Experiment 1 and 2 read the following introduction:

The Paris Agreement is an international accord that was signed by 192 countries to address climate change. Each member state has pledged to rapidly reduce its carbon dioxide emissions. Brazil, as a signatory and a major emitter of carbon dioxide globally, has voluntarily pledged to lower its emissions by 43% by the year 2030. In the next screen, we will introduce a scenario that a future Brazilian government might face in relation to its pledge under this accord. Later, we will ask your opinion on the matter.

10.1 Experiment 1:

No Shaming Condition:

- In 2030, a panel of scientists concludes that Brazil has completely fulfilled its pledge under the Paris Agreement to reduce carbon dioxide emissions by 43%.
- The scientists assert that the policies and laws adopted over the years by the government of Brazil have reduced the country's carbon dioxide emissions by 43%.

Before continuing, we would like to make sure you understood all the information presented above.

1. According to the passage above, did Brazil fulfill its promise to reduce carbon dioxide emissions?
    - Yes
    - No
    - Not sure
2. According to the passage above, what was the reduction in Brazil's carbon dioxide emissions?
    - 43%
    - 25%
    - 9%
    - 2%
    - It was not mentioned

– new page —

Just to review:

- In 2030, a panel of scientists concludes that Brazil has completely fulfilled its pledge under the Paris Agreement to reduce carbon dioxide emissions by 43%.
- The scientists assert that the policies and laws adopted over the years by the government of Brazil have reduced the country's carbon dioxide emissions by 43%.

Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- Disapprove strongly

Shaming Condition:

- (Same text from No Shaming condition)
- The panel's conclusion attracts international criticism against the government of Brazil.
- Many countries assert that Brazil should feel ashamed for having done nothing to reduce its carbon dioxide emissions and for violating the promises it made under the Paris Agreement.

Before continuing, we would like to make sure you understood all the information presented above.

1. According to the passage above, did Brazil fulfill its promise to reduce carbon dioxide emissions?

    - Yes
    - No
    - Not sure

2. According to the passage above, what was the reduction in Brazil's carbon dioxide emissions?

    - 43%
    - 25%
    - 9%
    - 2%
    - It was not mentioned

3. In the passage you read, did other countries criticize Brazil?

    - Yes
    - No
    - Not sure

– new page —

Just to review:

- (Same text from No Shaming condition)
- The panel's conclusion attracts international criticism against the government of Brazil.

- Many countries assert that Brazil should feel ashamed for having done nothing to reduce its carbon dioxide emissions and for violating the promises it made under the Paris Agreement.

Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- Disapprove strongly

Historical Responsibility:

- (Same text from No Shaming condition)
- (Same text from Shaming condition)
- (Same text from Shaming condition)
- The government of Brazil responds to the criticism by asserting that, historically, the country has been minimally responsible for the carbon dioxide emissions that cause climate change. After all, the majority of such emissions have been generated by wealthy and developed countries. For this reason, Brazil does not feel obligated to fulfill its commitment under the Paris Agreement.

Before continuing, we would like to make sure you understood all the information presented above.

Note: Same first three questions as in the Shaming Condition, followed by this next one:

1. According to the passage above, did the Brazilian government say that throughout history, Brazil has been only minimally responsible for emissions causing climate change?

    - Yes
    - No
    - Not sure

    Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

    - Approve strongly
    - Approve somewhat
    - Neither approve nor disapprove
    - Disapprove somewhat
    - Disapprove strongly

Reciprocity as Effectiveness:

- (Same text from No Shaming condition)
- (Same text from Shaming condition)
- (Same text from Shaming condition)
- The government of Brazil responds to the criticism by asserting that it will comply with the Paris Agreement only when other countries that are also major carbon dioxide emitters do the same. After all, if these other significant emitters fail to fulfill their pledges, the agreement will not be effective in averting the negative consequences of climate change on the environment and the global economy.

Before continuing, we would like to make sure you understood all the information presented above.

Note: Same first three questions as in the Shaming Condition, followed by this next one:

1. According to the passage above, did the Brazilian government state that the agreement will not be effective in reducing the negative effects of climate change if other major emitters do not fulfill their commitments?

   - Yes
   - No
   - Not sure

   Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

   - Approve strongly
   - Approve somewhat
   - Neither approve nor disapprove
   - Disapprove somewhat
   - Disapprove strongly

Reciprocity as Self-Interest:

- (Same text from No Shaming condition)
- (Same text from Shaming condition)
- (Same text from Shaming condition)
- The government of Brazil responds to the criticism by asserting that it will comply with the Paris Agreement only when other countries that are also major carbon dioxide

emitters do the same. After all, if these other significant emitters fail to fulfill their pledges, Brazil will be at a disadvantage in relation to them.

Before continuing, we would like to make sure you understood all the information presented above.//

Note: Same first three questions as in the Shaming Condition, followed by this next one:

1. According to the passage above, did the Brazilian government state that they will be at a disadvantage if other significant emitters fail to fulfill their pledges?

   - Yes
   - No
   - Not sure

   Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

   - Approve strongly
   - Approve somewhat
   - Neither approve nor disapprove
   - Disapprove somewhat
   - Disapprove strongly

Defiance:

- (Same text from No Shaming condition)
- (Same text from Shaming condition)
- (Same text from Shaming condition)

- The government of Brazil responds to the criticism by asserting that other countries do not have the right to interfere in its domestic affairs. After all, the criticism from these countries serves as an excuse to try to exert control over Brazil and exploit its natural resources.

Before continuing, we would like to make sure you understood all the information presented above.

Note: Same first three questions as in the Shaming Condition, followed by this next one:

1. According to the passage above, did the Brazilian government state that other countries were trying to control Brazil?

   - Yes
   - No
   - Not sure

   Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

   - Approve strongly
   - Approve somewhat
   - Neither approve nor disapprove
   - Disapprove somewhat
   - Disapprove strongly

10.2 Experiment 2

No Shaming Condition:

- In 2030, a panel of scientists concludes that Brazil has only partially fulfilled its pledge under the Paris Agreement to reduce carbon dioxide emissions by 43%.
- The scientists assert that the policies and laws adopted over the years by the government of Brazil have reduced the country's carbon dioxide emissions by 9%.

Before continuing, we would like to make sure you understood all the information presented above.

1. According to the passage above, did Brazil partially fulfill its promise to reduce carbon dioxide emissions?
    - Yes
    - No
    - Not sure
2. According to the passage above, what was the reduction in Brazil's carbon dioxide emissions?
    - 43%
    - 25%
    - 9%
    - 2%
    - It was not mentioned

– new page —

Just to review:

- In 2030, a panel of scientists concludes that Brazil has only partially fulfilled its pledge under the Paris Agreement to reduce carbon dioxide emissions by 43%.
- The scientists assert that the policies and laws adopted over the years by the government of Brazil have reduced the country's carbon dioxide emissions by 9%.

Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- Disapprove strongly

Shaming Condition:

- (Same text from No Shaming condition)
- The panel's conclusion attracts international criticism against the government of Brazil.
- Many countries assert that Brazil should feel ashamed for having done so little to reduce its carbon dioxide emissions and for violating the promises it made under the Paris Agreement.

Before continuing, we would like to make sure you understood all the information presented above.

1. According to the passage above, did Brazil partially fulfill its promise to reduce carbon dioxide emissions?

- Yes
- No
- Not sure

2. According to the passage above, what was the reduction in Brazil's carbon dioxide emissions?

   - 43%
   - 25%
   - 9%
   - 2%
   - It was not mentioned

3. In the passage you read, did other countries criticize Brazil?

   - Yes
   - No
   - Not sure

– new page —

Just to review:

- (Same text from No Shaming condition)
- The panel's conclusion attracts international criticism against the government of Brazil.
- Many countries assert that Brazil should feel ashamed for having done so little to reduce its carbon dioxide emissions and for violating the promises it made under the Paris Agreement.

Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- Disapprove strongly

Historical Responsibility:

- (Same text from No Shaming condition)
- (Same text from Shaming condition)
- (Same text from Shaming condition)
- (Same text from Experiment 1 (Historical Responsibility).

Before continuing, we would like to make sure you understood all the information presented above.

Note: Same first three questions as in the Shaming Condition, and the same question from historical responsibility condition on Experiment 1.

Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

- Approve strongly
- Approve somewhat

- Neither approve nor disapprove
- Disapprove somewhat
- Disapprove strongly

Reciprocity as Effectiveness:

- (Same text from No Shaming condition)
- (Same text from Shaming condition)
- (Same text from Shaming condition)
- (Same text from Experiment 1 (Historical Responsibility).

Before continuing, we would like to make sure you understood all the information presented above.

Note: Same first three questions as in the Shaming Condition, and the same question from reciprocity as effectiveness condition on Experiment 1.

Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- Disapprove strongly

Reciprocity as Self-Interest:

- (Same text from No Shaming condition)
- (Same text from Shaming condition)
- (Same text from Shaming condition)
- (Same text from Experiment 1 (Reciprocity as Self-Interest).

Before continuing, we would like to make sure you understood all the information presented above.

Note: Same first three questions as in the Shaming Condition, and the same question from reciprocity as self-interest condition on Experiment 1.

Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- Disapprove strongly

Defiance

- (Same text from No Shaming condition)
- (Same text from Shaming condition)

- (Same text from Shaming condition)
- (Same text from Experiment 1 (Defiance).

Before continuing, we would like to make sure you understood all the information presented above.

Note: Same first three questions as in the Shaming Condition, and the same question from defiance condition on Experiment 1.

Taking into account the information above, do you approve or disapprove of government policy towards the Paris Agreement?

- Approve strongly
- Approve somewhat
- Neither approve nor disapprove
- Disapprove somewhat
- Disapprove strongly

10.3 Demographic Questions

1. What is your gender?

   Male; Female

2. What is your age?

   Open text box

3. What is your state?

   Open text box

4. Average estimated income of your household (consider the sum of your income with the income of the people who live with you)?

   Open text box

5. What is your color/race?

   White; Black; Brown; Yellow; Indigenous

6. What is your highest level of education?

   Less than one year of formal instruction; Some elementary school; Elementary school diploma; Some high school; High school diploma; Some college; College diploma; Some graduate school; Graduate school diploma