

Partisanship overcomes framing in shaping solar geoengineering perceptions: Evidence from a conjoint experiment

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Abstract

The discourse on solar geoengineering (SG) is evolving, yet public perceptions of SG as a climate change solution remain underexplored, especially in the context of today's political polarization in the United States. We examine how different SG narratives—framed as complementary, substitutive, or posing a moral hazard—interact with partisan information sources to shape public attitudes. Using a conjoint experiment with 2,000 American voters, we find that partisan alignment with the information source strongly influences trust in the messenger and support for SG, overshadowing any impact of message framing. When co-partisan sources present information, both Democrats and Republicans are more likely to trust the communicator and support SG. Despite these partisan influences, policy preferences remain consistent with ideological baselines. These findings highlight the importance of political identity in shaping perceptions of emerging climate technologies like SG, even in contexts of low public awareness.

Keywords: Solar geoengineering, climate action, political polarization

1 Introduction

The discussion surrounding solar geoengineering (SG), also known as solar radiation management (SRM), is evolving rapidly, as attention grows on how these technologies could help mitigate climate change. Solar geoengineering strategies are designed to lower the Earth's temperature through various methods, such as introducing small reflective particles to the upper atmosphere, increasing reflective cloud cover in the lower atmosphere, or thinning high-altitude clouds that can absorb heat (National Academies of Sciences, Engineering, and Medicine, 2021). The 2021 National Academies of Sciences report emphasizes the urgency of addressing climate risks and recommends that the U.S. modestly fund SG research alongside much larger investments in a broader range of climate mitigation and adaptation strategies (National Academies of Sciences, Engineering, and Medicine, 2021).

SG is entering the public conversation at a pivotal moment, but its potential to influence broader climate-related beliefs and behaviors is still largely unexplored, particularly given the U.S.'s politically polarized climate policy landscape. Given the general public's unfamiliarity with SG technologies, early and effective communication will shape perceptions of SG's potential benefits and risks (Borick and Rabe, 2012; Magistro et al., 2024; Raimi et al., 2019; Scheer and Renn, 2014; Debnath et al., 2023; Müller-Hansen et al., 2023). While climate change framing has typically had a limited impact on deeply held beliefs (McCright et al., 2016), SG's relatively low salience offers a unique opportunity to influence public opinion through strategic framing. This insight is supported by recent surveys conducted across 22 countries (Baum et al., 2024; Fritz et al., 2024; Low et al., 2024; Müller-Hansen et al., 2023).

In the United States, climate change discourse is deeply divided along partisan lines, with Republicans and Democrats often holding starkly different views on climate science, policy, and solutions (Dunlap and McCright, 2008; McCright and Dunlap, 2011b). Republicans tend to be more skeptical of the scientific consensus on climate change and less supportive of government regulations to address it (Båtstrand, 2015; Debnath et al., 2021; Hornsey et al., 2016; Hornsey and Lewandowsky, 2022; Karol, 2019; Leiserowitz, 2006; McCright and Dunlap, 2011a,b). This polarization complicates efforts to address climate change and highlights the need to understand how communication on an unfamiliar issue, such as SG, interacts with existing ideological divides.

As discussions around SG evolve, three key perspectives have emerged: some, including the scientific community, see SG as a "complement" to existing climate mitigation and adaptation strategies (National Academies of Sciences, Engineering, and Medicine, 2021); others see it as a potential "substitute" for reducing greenhouse gas emissions (Campbell and Kay, 2014; Kahan et al., 2015); and some raise concerns about the "moral hazard" SG might create by reducing the urgency for traditional climate actions (Stephens et al., 2023a). These differing frames are likely to shape public perceptions, particularly in a politically polarized environment. For example, a substitutionary

58 framing might appeal to conservatives, who may view SG as a technological fix and a preferable
59 alternative to other regulatory climate measures (Baum et al., 2024; Campbell and Kay, 2014;
60 Kahan et al., 2015). Consistent with this, some studies suggest that SG discussions could help
61 engage a divided public on climate science and offer an entry for discussion of potential solutions
62 (Low et al., 2024; Magistro et al., 2024).

63 This study examines how different SG frames and partisan sources of information influence public
64 trust in the messenger and support for SG, as well as support for various climate mitigation
65 policies, in a politically polarized context. Using a representative sample of 2,000 American
66 registered voters, we analyze how the interaction between message framing and the partisanship
67 of the messenger shapes attitudes toward SG. This highlights an underexplored area: how differing
68 narratives and sources affect public acceptance of SG in conjunction with existing climate policies.
69 Given the public's limited awareness of SG, the framing of these messages and the partisanship of
70 information sources may significantly shape the direction of SG discourse. To investigate whether
71 public support for SG and climate mitigation policies varies based on message framing and the
72 political identity of the sender, we used a conjoint experiment.

73 Conjoint experiments simulate real-world decision-making processes in a controlled environment,
74 providing insights into the factors that drive individuals' choices. By simultaneously manipulating
75 the framing of solar geoengineering messages and the identity of the information sources while hold-
76 ing other factors constant, we can causally assess how framing strategies and partisan messengers
77 influence public support for SG and quantify the relative importance of these factors.

78 Our findings reveal that partisan alignment between the information source and the respondent
79 plays a crucial role in shaping attitudes toward SG. Republicans are more likely to trust the
80 communicator and support SG when the information comes from a source aligned with their
81 political identity, while Democrats show similar patterns with co-partisan sources. Interestingly,
82 framing SG as a complement, substitute, or moral hazard had minimal impact compared to
83 the influence of the partisan messenger. These results suggest that in a politically polarized
84 environment, the effectiveness of SG communication strategies will depend more on the perceived
85 political alignment of the messenger than on the content of the message itself. This has significant
86 implications for policymakers and advocates engaging the public on emerging climate technologies
87 like SG, particularly in contexts marked by deep ideological divides.

88 2 Background

89 The literature on solar geoengineering has framed this emerging technology in three primary ways.
90 The most common perspective in the scientific community is that SG may be “complementary”
91 to other efforts to reduce GHG emissions. The recent NASEM report, for example, recommends
92 that the U.S. pursue SG research while clearly stating that SG should not be seen as a substitute

93 for cutting GHG emissions. Rather, it should be viewed as part of a comprehensive portfolio
94 of climate mitigation and adaptation strategies that should be studied (National Academies of
95 Sciences, Engineering, and Medicine, 2021).

96 The second framing views solar geoengineering as a “substitute” for other emissions reduction
97 measures. Research by Magistro et al. (2024) found that although over 50% of Americans have
98 never heard about SG, familiarity with SG could reduce political polarization. Specifically, individ-
99 uals familiar with SG—across both liberal/Democratic and conservative/Republican lines—were
100 more likely to believe in its potential impact. The authors hypothesized that increased support
101 among Republicans may result from perceiving SG as a replacement for current climate change
102 mitigation efforts rather than a complement. This perspective aligns with other research suggest-
103 ing that conservatives favor SG for its perceived ability to offer a technological solution that avoids
104 regulatory actions and emission cuts (Campbell and Kay, 2014; Kahan et al., 2015).

105 The third framing focuses on the “moral hazard” potential of solar geoengineering. Some re-
106 searchers are concerned that SG could diminish other efforts to reduce emissions (Stephens et al.,
107 2023a). This “moral hazard” concept suggests that SG might deter traditional mitigation strate-
108 gies by offering an alternative that reduces the perceived urgency to directly combat climate
109 change (Cherry et al., 2022; Keith, 2000; Merk and Wagner, 2024; Reynolds, 2019). However,
110 empirical evidence remains on this issue is mixed. Some studies highlight potential moral hazard
111 effects (Raimi et al., 2019), while others find no impact of information or framing on support for
112 mitigation (Fairbrother, 2016; Merk and Wagner, 2024). Still, other research points to a possible
113 “reverse moral hazard” effect, where awareness of SG options could actually increase support for
114 mitigation efforts (Austin and Converse, 2021; Cherry et al., 2021, 2022; Kahan et al., 2015; Merk
115 et al., 2016).

116 These differing frames highlight the challenges of governing and regulating SG research and poten-
117 tial deployment. Key concerns include the transboundary effects of large-scale outdoor activities
118 and the global implications of SG implementation (Reynolds, 2019). SG introduces what some see
119 as a “technosolutionist” approach to climate change mitigation, contrasting with environmentalist
120 perspectives that prioritize minimal intervention in nature as a path to sustainability (Brownsword
121 et al., 2017). Additionally, SG’s benefits are often designed for a single actor, like a state, even
122 though others may disagree on whether, when, or how SG should be implemented (Reynolds,
123 2019). These uncertainties make SG decisions inherently political, raising questions about inter-
124 national cooperation, global climatic targets, and the prioritization of climate objectives relative
125 to other national interests (Sovacool et al., 2023b; Stephens et al., 2023b). In this context, public
126 participation is essential for shaping the direction of SG research, development, and governance
127 (Macnaghten and Szerszynski, 2013; Reynolds, 2019).

128 In the U.S., public opinion on SG is shaped by exposure to climate change information, which

has been shown to increase support for SG research and potential deployment. For example, Horton et al. (2023) noted that since 2020, the National Oceanic and Atmospheric Administration (NOAA) has received substantial funding for SG-related research, yet an active advocacy coalition supporting SG program development is still lacking. At the individual level, Low et al. (2024) found that public support tends to favor more regionally bounded, non-stratospheric aerosol injection (SAI) approaches, and there is a strong preference for international collaboration from the early stages of SG research. These findings suggest that SG governance could benefit from deeper engagement with national strategic and security planning communities to address potential political and strategic challenges (Low et al., 2024; McLaren and Corry, 2021; Sovacool et al., 2023a).

The entrenched polarization of climate change discourse in the U.S. poses significant challenges for shaping public attitudes toward SG. Climate change has long been a source of sharp division, with Republicans and Democrats frequently adopting opposing views on the validity of climate science, the urgency of the issue, and the appropriate policy responses (Dunlap and McCright, 2008; McCright and Dunlap, 2011b). Republicans are generally more skeptical of the scientific consensus on climate change and less supportive of government interventions to mitigate its effects (Båtstrand, 2015; Debnath et al., 2021; Hornsey et al., 2016; Hornsey and Lewandowsky, 2022; Karol, 2019; Leiserowitz, 2006; McCright and Dunlap, 2011a,b). This political divide suggests that attitudes toward SG are shaped not only by the framing of the technology but also by the partisan lenses through which information is interpreted.

In this study, we manipulate the framing of SG messages, presenting SG as either complementary to existing climate change mitigation efforts, as a substitute for these efforts, or as a potential moral hazard that detracts from current strategies. We also vary the identity of the sender, considering whether they are perceived as representing the general public (a podcaster) or scientific expertise (a researcher), as well as their political affiliation (Democrat or Republican). Given previous research suggesting that Republicans are less likely to trust scientists, we want to explore whether the source of information influences support for SG across partisan lines (Alvarez et al., 2023). After analyzing the impact of message framing and sender identity on trust for the source, support for SG, and support for different climate mitigation measures, we introduce an additional argument outlining the risks of termination shock. This argument is intended to emphasize the potential consequences of abruptly halting SG while continuing to emit CO₂, highlighting the unsustainability of viewing SG as a substitute for current mitigation efforts.

We make several predictions regarding the expected responses of Democrats and Republicans to different message framings and sender identities. We anticipate that Republicans will respond more positively to information from Republican-affiliated and podcaster sources, showing higher levels of trust in these senders. In contrast, we expect Democrats to respond more favorably

165 to Democratic-affiliated and researcher sources, demonstrating greater trust in these messengers.
166 Additionally, we predict that Republicans will show increased support for SG when it is framed
167 as a substitute for current mitigation efforts, while Democrats will likely exhibit stronger support
168 when SG is framed as complementary. Finally, we hypothesize that introducing information about
169 the risks associated with suddenly stopping SG (e.g., termination shock) will significantly alter
170 public support. Specifically, we expect that awareness of these risks may decrease support for
171 SG among both Republicans and Democrats, albeit through different mechanisms: Republicans
172 may become more cautious about relying on SG as a standalone solution, while Democrats may
173 increasingly prioritize traditional emission reduction strategies over SG.

174 **3 Methods**

175 Conjoint analysis, a method now widely used in social science research, allows for an in-depth
176 examination of decision-making by presenting participants with hypothetical scenarios that in-
177 clude various attributes. In this study on solar geoengineering, we use a conjoint experiment to
178 investigate how two critical factors—the framing of SG (as a substitute, complement, or moral
179 hazard) and the identity of the information sender (based on partisanship and occupation)—
180 influence attitudes toward SG. This approach has several advantages, including the ability to
181 simultaneously assess the causal impact of multiple attributes on a single outcome, closely mir-
182 roring real-world decision-making processes where individuals must weigh trade-offs across several
183 dimensions (Bansak et al., 2021; Hainmueller et al., 2014).

184 To test our predictions, we conducted a survey with 2,000 U.S. registered voters, recruited through
185 the survey firm YouGov in December 2023. Before data collection, we preregistered our study
186 protocol on the Open Science Framework (OSF) at <https://osf.io/86nc9>. Participants were
187 selected from YouGov’s opt-in panel to be representative of the U.S. voter population. YouGov
188 employs a stratified random sampling method, ensuring that the sample reflects demographic
189 factors such as age, race/ethnicity, gender, education, geographic region, and 2020 presidential
190 vote. Population targets for these strata were derived from model estimates based on the 2019
191 American Community Survey, the November 2020 Current Population Survey, and TargetSmart
192 Voter Files. This approach produced a representative cross-section of respondents, enhancing
193 the generalizability of our findings. Furthermore, the data collection and analysis procedures
194 were reviewed and deemed exempt by the Institute Research Board at the California Institute of
195 Technology (IR22-1220).

196 **3.1 Analytical strategy**

197 The conjoint experiment serves as our primary empirical component and is divided into two parts.
198 We use “trust”, “support for SG”, and “policy preference” as our dependent variables, which we

regress on three attributes: whether the source of information is co-partisan or cross-partisan, whether they are researchers or podcasters, and the framing (complement, moral hazard, or substitute). “Trust” and “support for SG” are continuous variables going from 0 to 10, capturing how much the respondent trusts the information source and their level of support for solar geoengineering. The “policy preference” variable has four categories, measuring whether the respondent believes the US should invest in reducing emissions only, pursuing SG only, doing both, or doing neither. We treat each category as a dummy variable and run four separate regression models. In all models, we interact the three attributes with the respondents’ partisanship, focusing on Democrats and Republicans. To increase power, we include Independents leaning toward the Democratic Party with Democrats and Independents leaning toward the Republican Party with Republicans, leaving us with 1,828 respondents. Results do not differ substantially when Independents are not grouped this way.

Each regression model includes 9,140 observations—calculated as 1,828 respondents across five rounds of the conjoint experiment. In the results section, we present marginal means (MMs), which provide descriptive summaries of conjoint data. These MMs reflect the average outcome for a specific attribute level, while averaging across all other attributes. We defer the discussion of causal average marginal component effects (AMCEs) to the Appendix (Leeper et al., 2020). In the second part of the experiment, when we introduce the “termination shock” frame, we again use conjoint analysis and the same outcome variables. In this case, we include only one attribute, the frame (complement, moral hazard, substitute, and termination shock), and interact it with partisanship. Each regression model in this part includes 10,968 observations—calculated as 1,828 respondents across five rounds of the conjoint experiment, plus the final post-conjoint frame. All data analyses were conducted using R, specifically the *cregg* package.

3.2 Research Design

Socio-demographic Section:

Participants first answered socio-demographic questions and were asked about their awareness of solar geoengineering:

Solar geoengineering (SG) is an emerging technology proposed to cool the Earth’s atmosphere by increasing the amount of sunlight reflected from Earth or by reducing the trapping of outgoing thermal radiation.

How much have you heard about solar geoengineering in the last year:

- A lot
- Some

- A little

- Nothing

Main Conjoint Experiment:

Respondents were then shown five repetitions of the treatment, each consisting of two key components:

Information Senders: There are four hypothetical senders, each with a distinct political alignment and role:

- Jane Smith is a researcher from Brookings, a liberal think tank that is generally aligned with the Democratic party;
- Michelle Davis is a researcher from the American Enterprise Institute, a conservative think tank that is generally aligned with the Republican party;
- Sarah Anderson hosts the Sarah Anderson show, a prominent conservative podcast that is generally aligned with the Republican party;
- Julia Wilson hosts the Julia Wilson show, a prominent liberal podcast that is generally aligned with the Democratic party.

Framing of Solar Geoengineering: Each sender presented solar geoengineering in one of three frames:

- Substitution frame: this emerging technology offers a solution that can effectively cool the Earth's atmosphere without requiring everyone to continue reducing emissions and drastically change their lifestyles.
- Complementary frame: this emerging technology offers a solution that can effectively cool the Earth's atmosphere, helping reduce some of the risks of climate change. It complements our ongoing efforts of emission reduction, carbon removal and sequestration, and adaptation strategies.
- Moral hazard frame: while solar geoengineering offers hope for a technological fix to cool the Earth's atmosphere, relying on this solution may delay or even halt urgently needed efforts to reduce emissions.

Here is one example of one of the five conjoint scenarios that a respondent may see:

Jane Smith is a researcher from Brookings, a liberal think tank that is generally aligned with the Democratic party. In her most recent publication, she discussed solar geoengineering. She argued that this emerging technology offers a solution that can effectively cool the Earth's atmosphere, helping reduce some of the risks of climate change. It

complements our ongoing efforts of emission reduction, carbon removal and sequestration, and adaptation strategies.

Post-Conjoint Questions:

After each conjoint scenario, respondents answered the following questions:

1. How much do you trust this information source? (0-10)
2. How likely are you to support solar geoengineering? (0-10)
3. Do you think that the US should invest mainly in reducing carbon emissions, invest mainly in solar geoengineering techniques, both, or neither?

Final Prompt on Termination Shock:

Participants received a final prompt attributed to one of the senders. Here is an example:

Michelle Davis, a researcher from the American Enterprise Institute, a conservative think tank that is generally aligned with the Republican party, also added that: If we pursue solar geoengineering (SG) we must continue reducing emissions and removing and sequestering carbon from the atmosphere. If we kept constant or increased our emissions while pursuing SG, one of the biggest risks would be suddenly stopping SG, because stopping it would cause any carbon dioxide in the air to rewarm the planet faster than before, leading to catastrophic consequences.

Post-Final Prompt Questions:

Participants rated their trust in the information source and their likelihood of supporting SG on a scale from 0 to 10. They also indicated their preference for investing in reducing carbon emissions, solar geoengineering techniques, both, or neither.

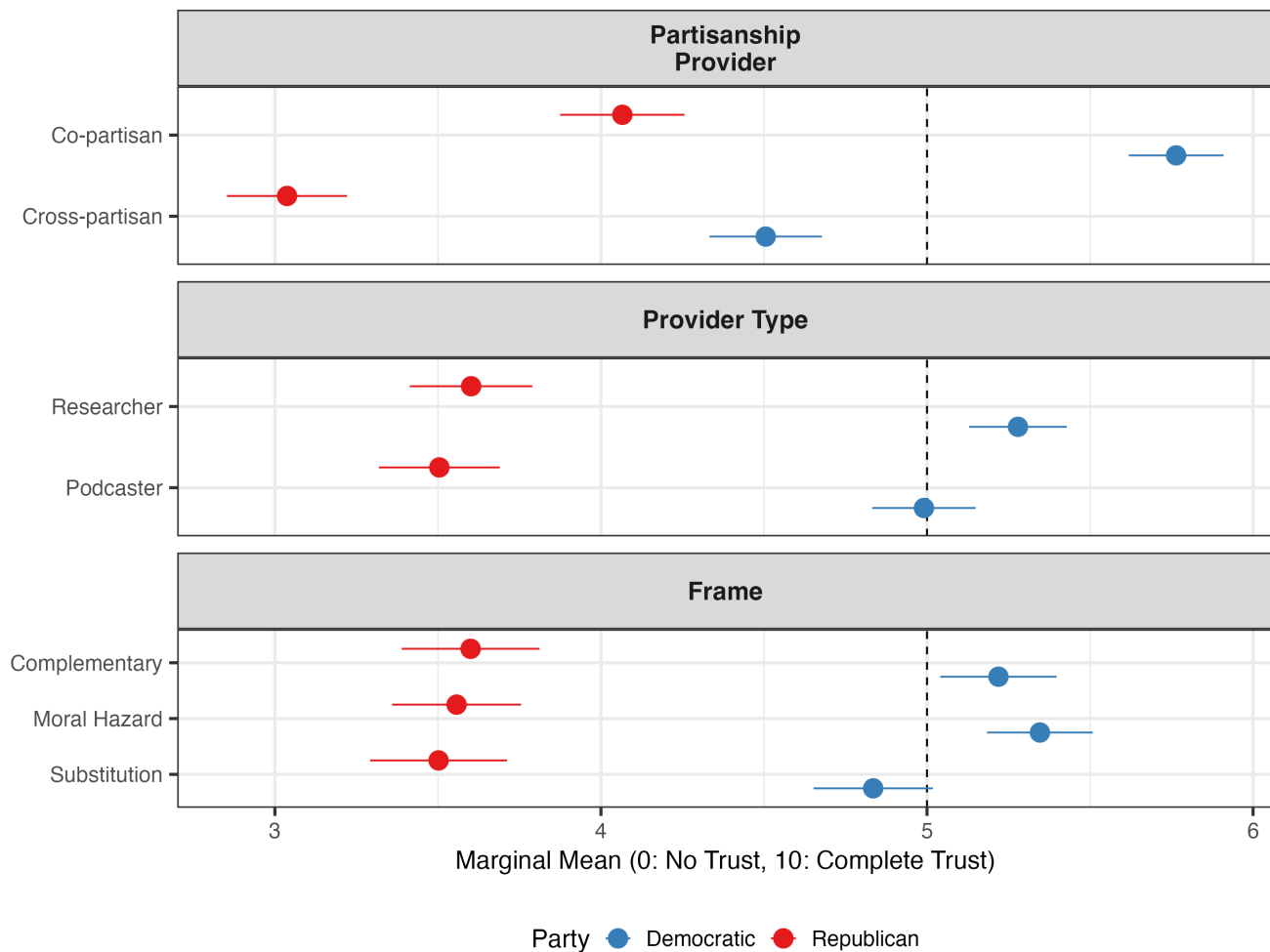
4 Results

4.1 The effects of partisanship and framing

We examine how the partisanship of information sources, their roles as researchers or podcasters, and the framing of messages influence public perceptions of solar geoengineering. Figures 1 and 2 show that partisan alignment between the information source and the respondent significantly impacts both trust in the messenger and support for SG. Contrary to our expectations, the distinction between researchers and podcasters does not significantly influence respondents' opinions. Similarly, message framing has only a limited effect on respondents' attitudes.

Republicans show 10% higher support for SG and 32% greater trust in the messenger when the information comes from co-partisan sources, but they do not display preferential responsiveness for

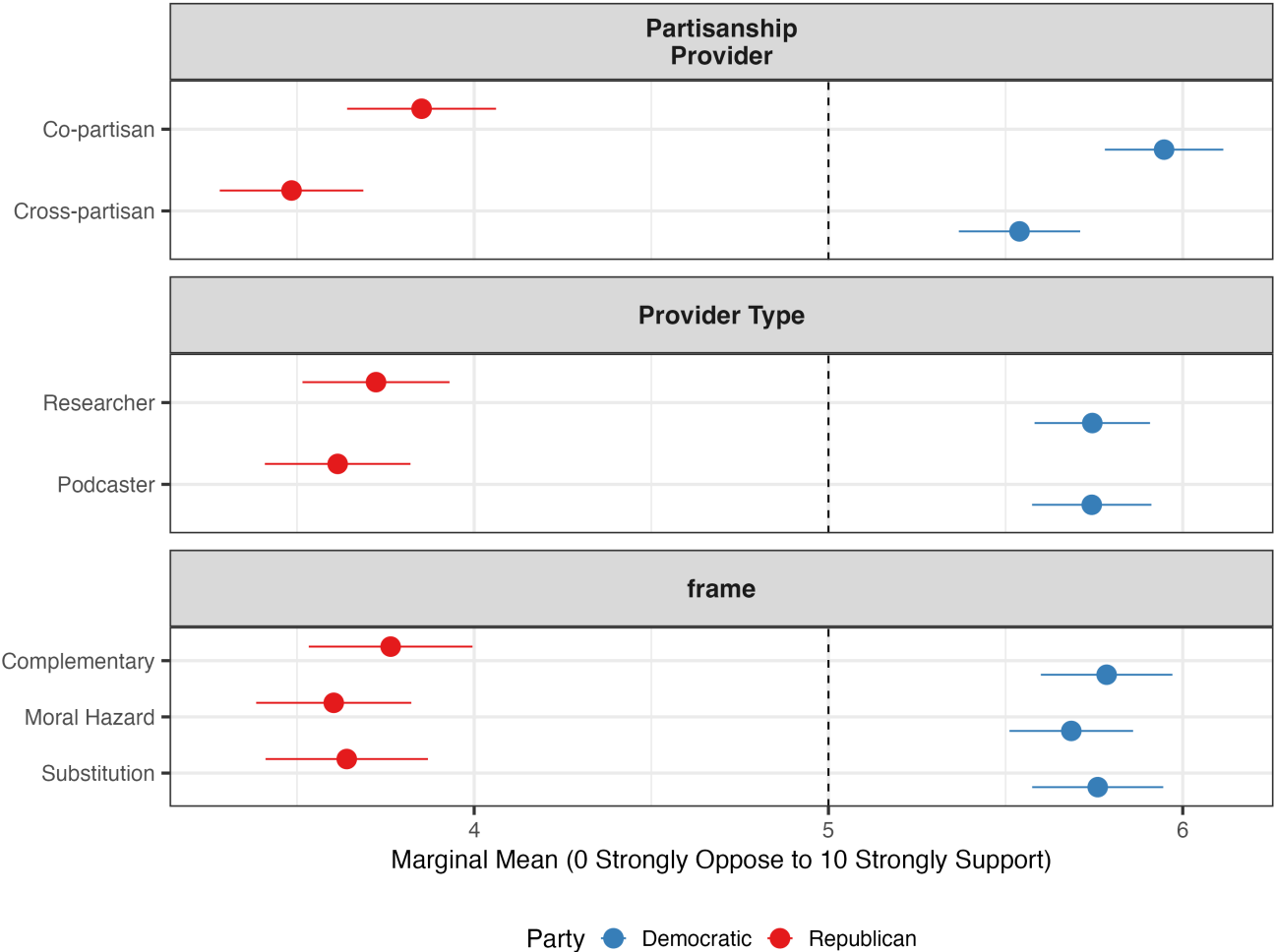
Figure 1: Marginal means of trust of communication



podcasters. In contrast, Democrats show 6% higher support for SG and 26% greater trust for co-partisan sources, with a slight preference for researchers over podcasters. However, their support for SG does not significantly change depending on whether the source is a researcher or podcaster. For Republicans, message framing has little to no effect, while Democrats trust messengers less under the substitution frame than the complementary and moral hazard frames. Although framing has some influence on trust levels, partisan alignment plays a much more substantial role in shaping attitudes.

Figure 3 indicates that partisanship has less influence on policy preferences, which are more fixed and revert to ideological baselines. Republicans' policy preferences are largely unaffected by any framing or source partisanship, reflecting a strong adherence to their pre-existing opposition to climate change mitigation efforts. Their modal preference is to pursue neither SG nor emission reduction, followed by doing both, reducing emissions only, and lastly, pursuing SG only. Democrats exhibit a more nuanced response to different sources. Support for pursuing both SG and emission

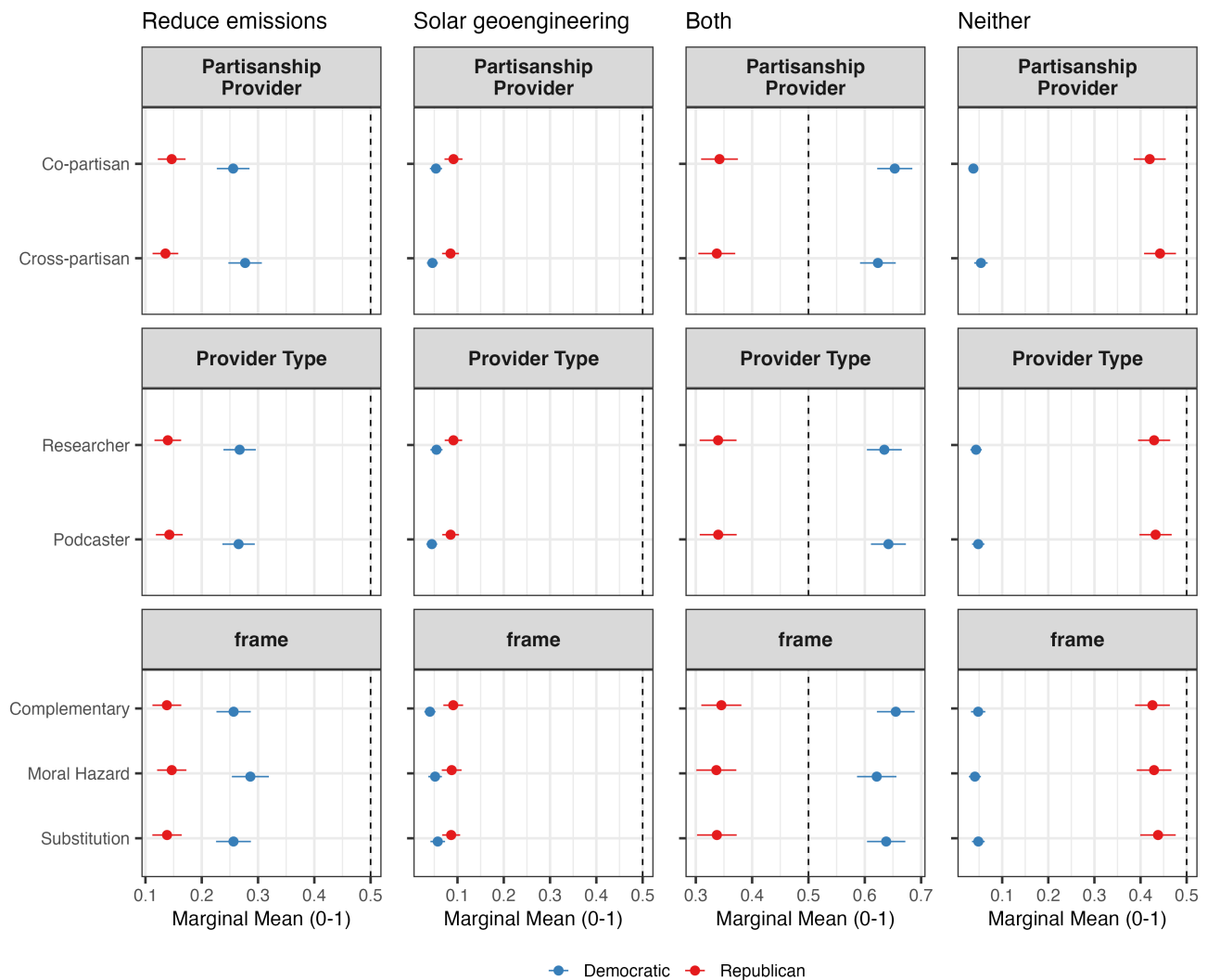
Figure 2: Marginal means of support for SG



reduction increases by 5% (from 0.62 to 0.65) when the information comes from a co-partisan. For Democrats, the most common preference is to do both SG and emission reduction, followed by reducing emissions only, pursuing SG only, and doing neither. Democrats are also somewhat sensitive to framing: compared to the complementary framing, the moral hazard framing increases the level of support for reducing emissions only by 8% (from 0.25 to 0.27) and decreases support for doing both by 5% (from 0.65 to 0.62). In contrast, the substitution framing increases support for pursuing SG alone by 30% (from 0.05 to 0.07), relative to the complementary frame.

Figures 4 and 5 show the effects of exposing respondents to the concept of termination shock—the rapid warming that could occur if SG were suddenly halted. Republicans exhibit slightly lower trust in the information source and reduced support for SG compared to the other frames, alongside a small but notable shift toward favoring emission reductions (a 14% increase compared to the complementary and substitution frames, from 0.14 to 0.16). Democrats, who trust messengers communicating about the termination shock frame more than the substitution frame and simi-

Figure 3: Marginal means of policies

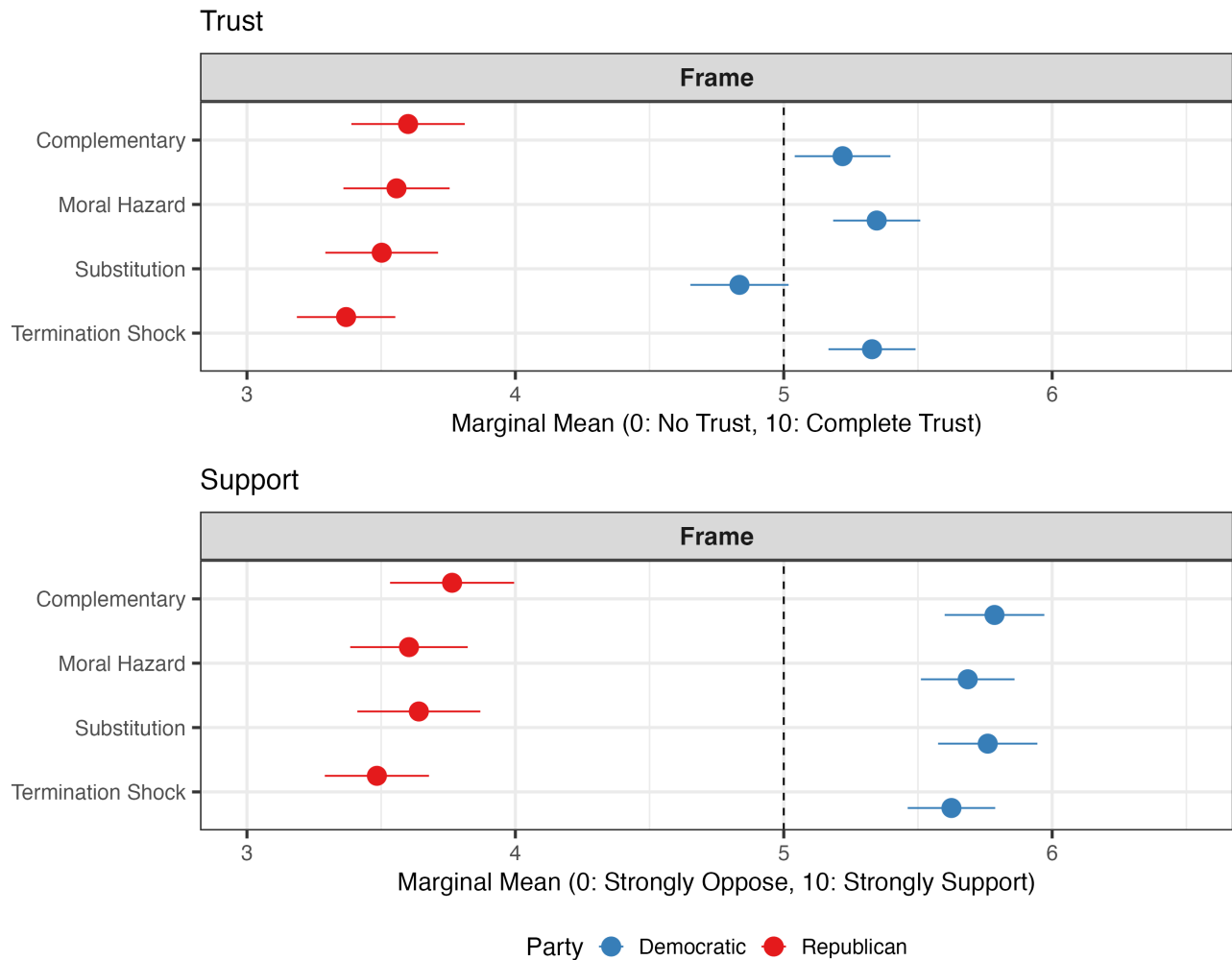


larily to the other frames, show a slight decline in support for SG relative to the complementary frame. However, their overall policy preferences remain mostly unchanged after encountering the termination shock scenario.

5 Discussion

In this study, we investigated how different message frames of solar geoengineering—whether presented as a complement to existing climate mitigation efforts, as a substitute, or as a potential moral hazard—along with the identity of the information sender (researcher or podcaster, Republican or Democrat), influence public attitudes toward SG. Our goal was to assess the relative importance of these factors in shaping public perceptions of SG, while also overcoming many limitations of past studies by relying on a high-quality, large-n, representative survey from YouGov,

Figure 4: Marginal means of trust and support with termination shock



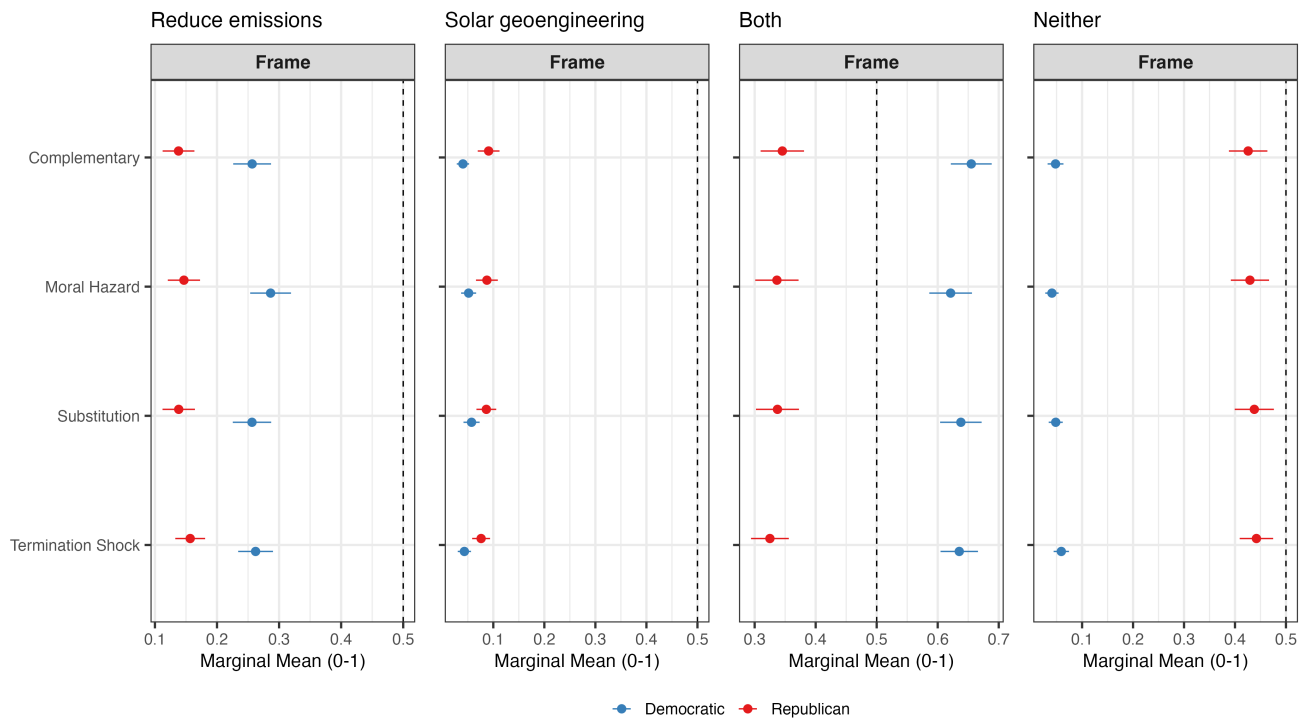
331 which ensures the reliability and generalizability of our findings.

332 Our results show that partisan alignment between the information source and the respondent
 333 significantly affects both trust in the messenger and support for SG. Specifically, Republicans
 334 exhibit 10% higher support for SG and 32% greater trust in the communicator when information
 335 is provided by co-partisan sources compared to cross-partisan sources. Similarly, Democrats show
 336 6% higher support for SG and a 26% increase in trust in the messenger when the information
 337 comes from a source aligned with their political affiliation.

338 Interestingly, the occupation of the messenger—whether they are researchers or podcasters—does
 339 not significantly influence respondents' opinions. Similarly, the impact of message framing—
 340 whether SG is presented as a complement, substitute, or moral hazard—is minimal relative to the
 341 influence of partisanship.

342 Despite the influence of partisan alignment on trust in the messenger and support for SG, we find

Figure 5: Marginal means of policies with termination shock



that policy preferences generally revert to ideological baselines. For Republicans, the modal response remains consistent with their ideological predispositions—a preference for investing neither in SG nor in emissions reductions. In contrast, while Democrats exhibit a more nuanced response, their policy preferences also largely reflect their ideological beliefs, with a preference for pursuing both SG and emission reductions.

The introduction of the concept of termination shock—a scenario emphasizing the potential consequences of abruptly halting SG while continuing CO2 emissions—causes a slight shift in Republicans’ preferences, increasing their support for emission reductions and decreasing their support for SG alone. However, this scenario does not significantly affect Democrats’ support for SG or their policy preferences.

Overall, we show that the alignment between the partisan identity of the information source and the respondent plays a crucial role in shaping public perceptions of solar geoengineering. In a politically polarized landscape, the impact of partisan alignment outweighs other factors, such as message framing or the professional background of the messenger. Despite the potential credibility associated with scientific expertise, the messenger’s occupation is overshadowed by the influence of partisan alignment. Similarly, different types of framings (whether complementary, substitute, moral hazard, or termination shock) have minimal impact and are consistently overshadowed by partisanship.

361 Moreover, our results highlight the difficulty of changing policy attitudes through information
362 campaigns alone, especially in a context where deeply held political beliefs strongly influence
363 preferences for SG and climate change mitigation strategies. The limited effect of message framing
364 on public opinion suggests that effective communication strategies must account for underlying
365 ideological predispositions.

366 **Ethical Statement**

367 The data collection and analysis procedures were reviewed by Caltech's Institutional Research
368 Board and were ruled exempt (IRB 22-1220). Informed consent was obtained from all partici-
369 pants.

370 **Code and Data Availability**

371 Upon publication, the code and data necessary to reproduce the results reported in this paper will
372 be made available in a permanent and public data repository, subject to any limitations imposed
373 by human subjects considerations.

374 **Author contributions**

375 BM, RMA, and RD contributed to the survey design and implementation; BM analyzed the data.
376 BM wrote the original draft. The authors participated equally in editing the paper.

377 **Competing Interests**

378 The author(s) declare no competing interests.

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Table A.1: Descriptive statistics of participant demographics

Variable	Category	Count (Percentage)
Gender		
	Female	1,150 (54%)
	Male	973 (46%)
Age Group		
	18 to 29	207 (9.8%)
	30 to 44	407 (19%)
	45 to 64	865 (41%)
	65 or older	644 (30%)
Education		
	HS or less	605 (28%)
	Some college	683 (32%)
	College grad	535 (25%)
	Postgrad	300 (14%)
Region		
	Northeast	382 (18%)
	Midwest	503 (24%)
	South	798 (38%)
	West	440 (21%)
Party ID		
	Democratic	779 (37%)
	Republican	662 (31%)
	Other	682 (32%)
Party ID (with leaners)		
	Democratic	946 (44.5%)
	Republican	882 (41.5%)
	Other	295 (14%)

Figure A.1: Average marginal component effects of trust

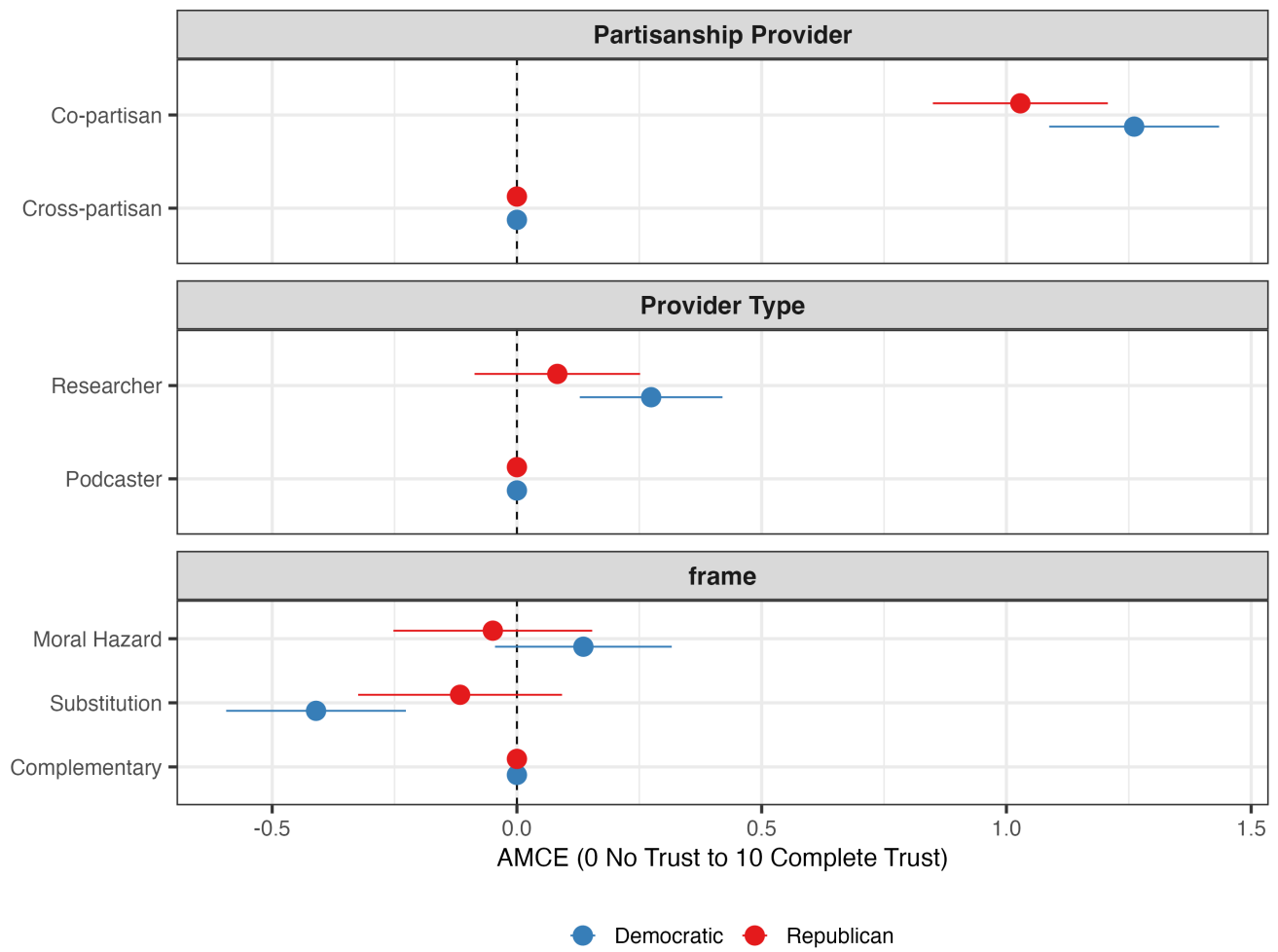


Figure A.2: Average marginal component effects of support

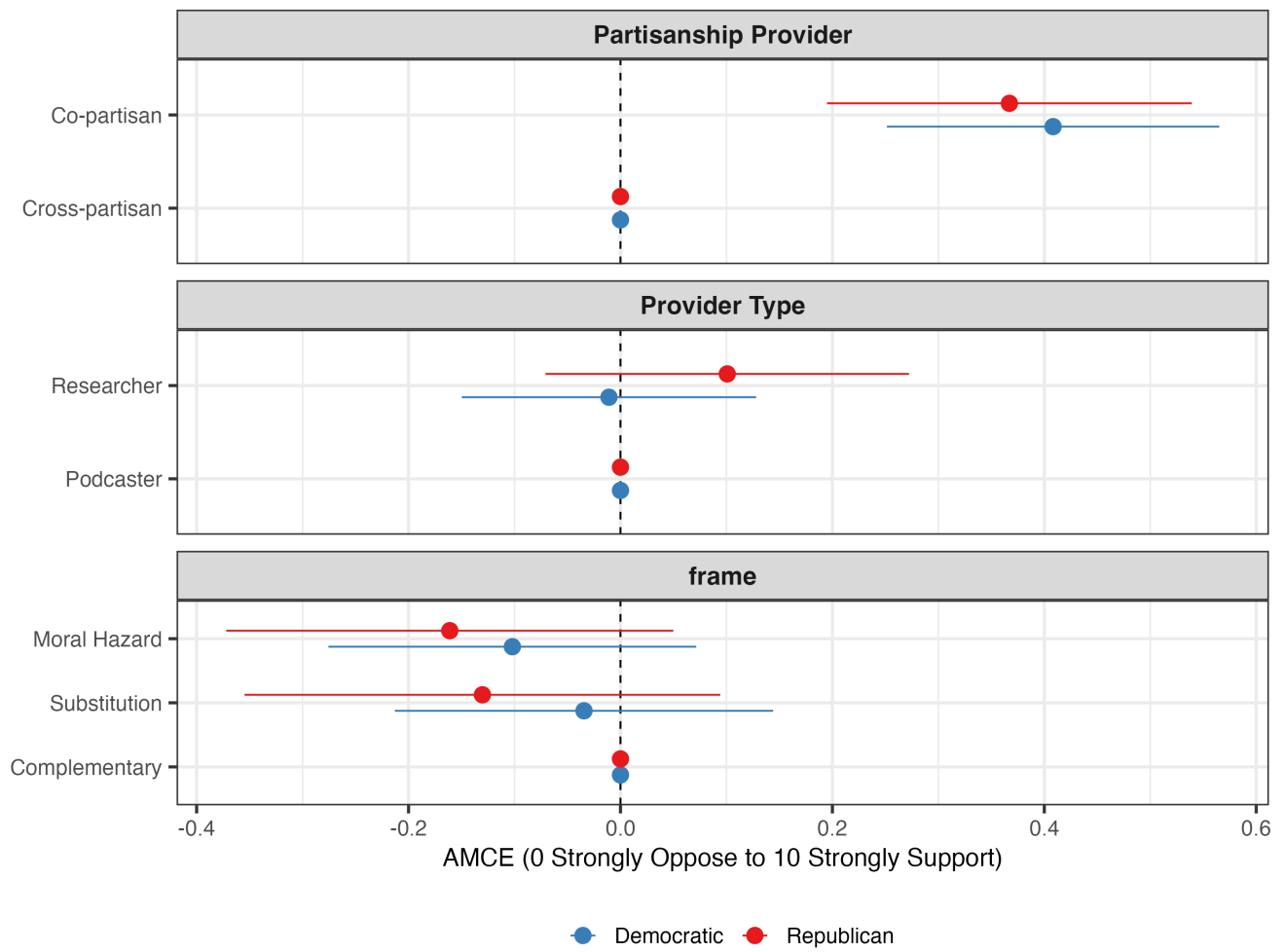


Figure A.3: Average marginal component effects of policies

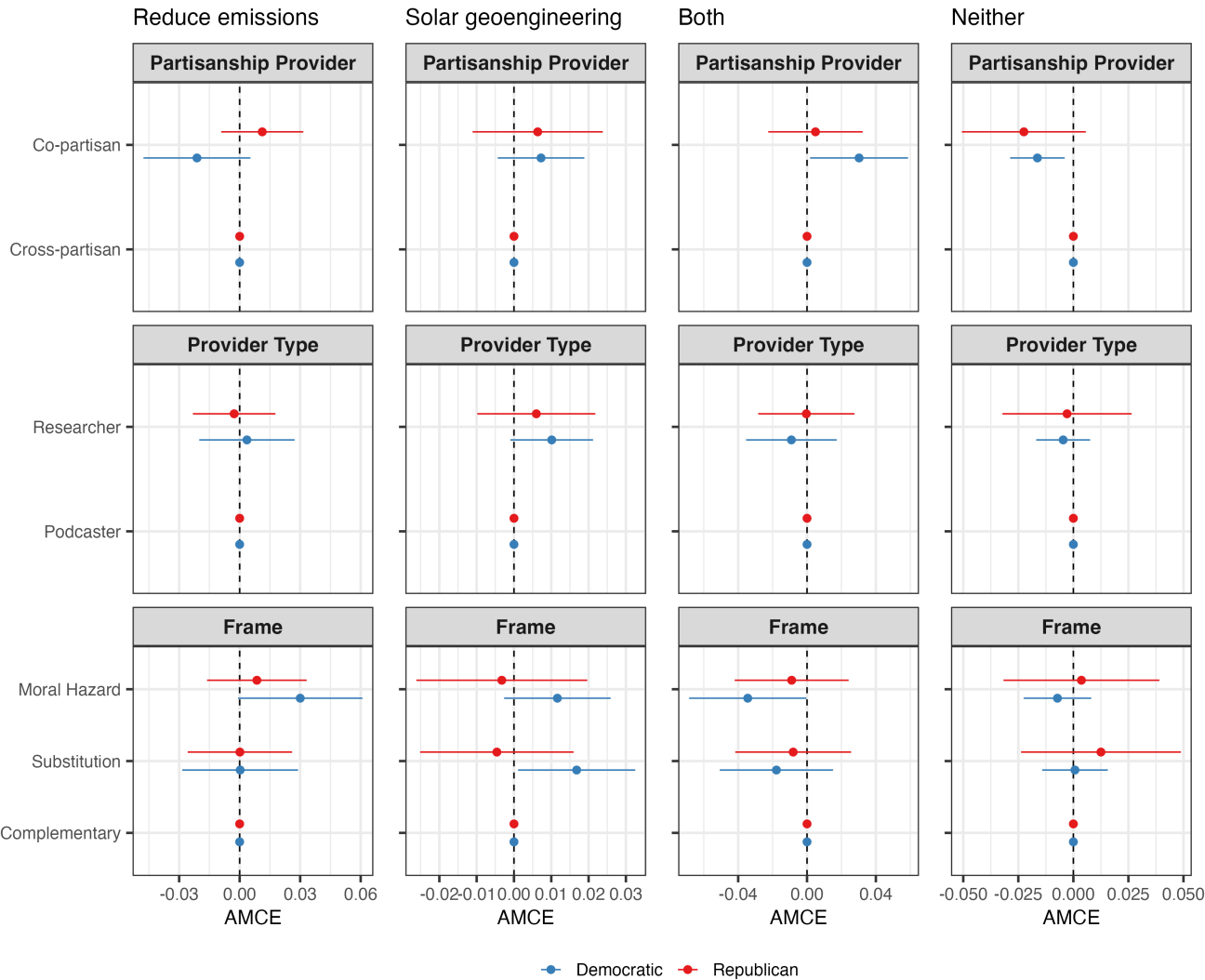


Figure A.4: Average marginal component effects of trust and support (including termination shock)

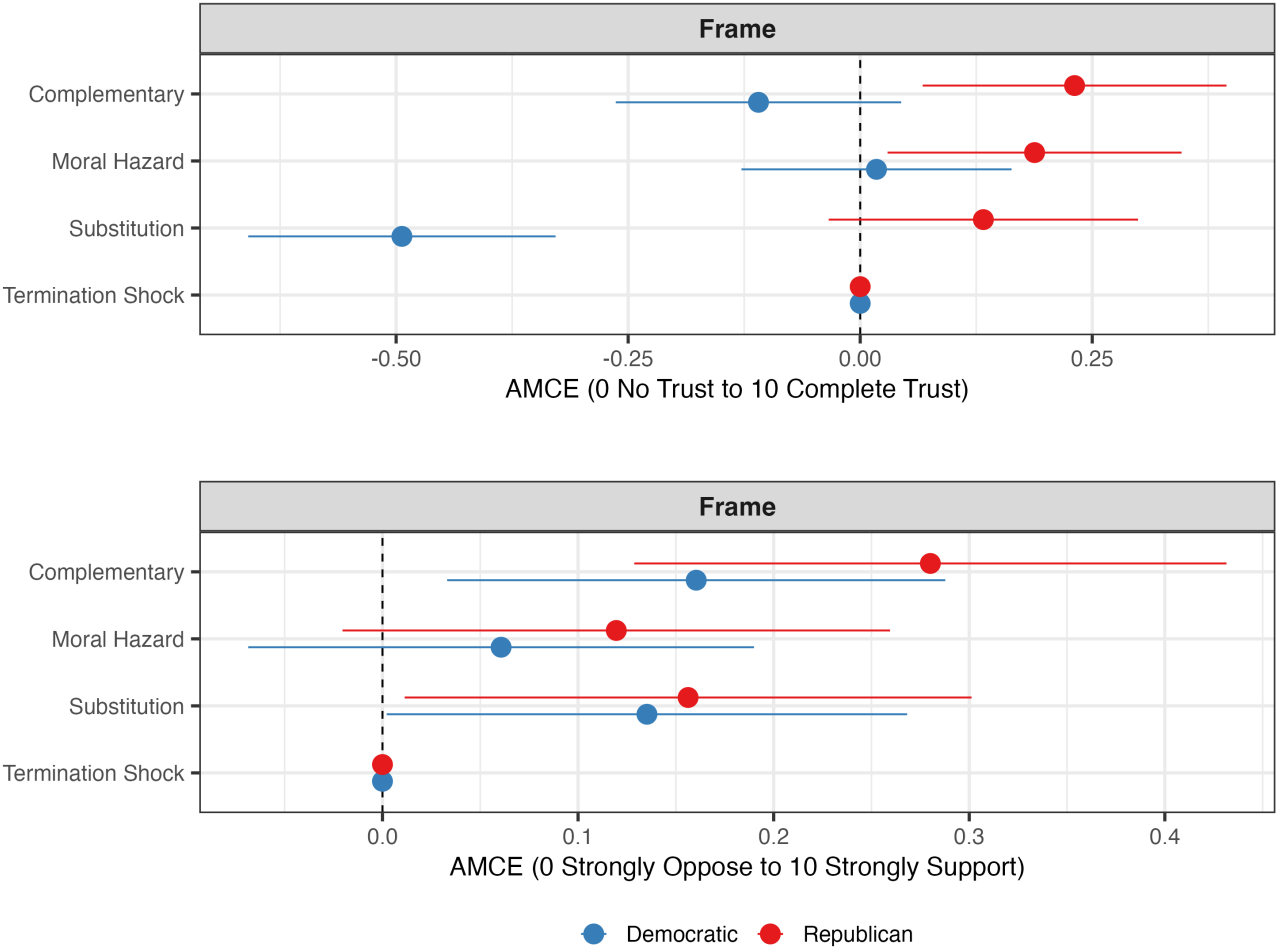


Figure A.5: Average marginal component effects of policies (including termination shock)

