

# Online Appendix for “Self-Persuasion: Evidence from Field Experiments at International Debating Competitions”\*

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## A Additional tables and figures

Table A.1: Debaters’ responsibilities by role

Team	Speaking role	Speaking order	Team	Speaking role	Speaking order
Opening Government (OG)	Prime Minister (PM)	First	Opening Opposition (OO)	Leader of the Opposition (LO)	Second
	<ul style="list-style-type: none"> <li>• Defines and interprets the motion</li> <li>• Develops the case for the proposition</li> </ul>			<ul style="list-style-type: none"> <li>• Accepts definition of the motion</li> <li>• Refutes the case of OG</li> <li>• Constructs arguments against PM’s interpretation of the motion</li> </ul>	
Opening Government (OG)	Deputy Prime Minister (DPM)	Third	Opening Opposition (OO)	Deputy Leader of the Opposition (DLO)	Fourth
	<ul style="list-style-type: none"> <li>• Refutes the case of OO</li> <li>• Rebuilds the case of OG</li> <li>• May add new arguments to the case of the PM</li> </ul>			<ul style="list-style-type: none"> <li>• Continues refuting the case of OG</li> <li>• Rebuilds the case of OO</li> <li>• May add new arguments to the case of the LO</li> </ul>	
Closing Government (CG)	Member of the Government (MG)	Fifth	Closing Opposition (CO)	Member of the Opposition (MO)	Sixth
	<ul style="list-style-type: none"> <li>• Defends the general direction and case of OG</li> <li>• Continues refutation of OO</li> <li>• Develops a new argument that is different from but consistent with the case of OG</li> </ul>			<ul style="list-style-type: none"> <li>• Defends the general direction taken by OO</li> <li>• Continues general refutation of OG’s case</li> <li>• Provides more specific refutation of CG’s case</li> <li>• Provides new opposition arguments</li> </ul>	
	Government Whip (GW)	Seventh		Opposition Whip (OW)	Eighth
	<ul style="list-style-type: none"> <li>• Summarizes the entire debate from the point of view of the proposition, defending the general view point of both OG and CG with a special eye toward the case of CG</li> <li>• Does not provide new arguments</li> </ul>		<ul style="list-style-type: none"> <li>• Summarizes the entire debate from the point of view of the opposition, defending the general view point of both OO and CO with a special eye toward the case of CO</li> <li>• Does not provide new arguments</li> </ul>		

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Table A.2: Debaters' baseline belief alignment and characteristics, by side of the motion

Sample:	Full sample	Opposition	Proposition	p-value
Baseline belief alignment	50.177 (0.638)	50.111 (0.906)	50.243 (0.898)	0.928
Female	0.348 (0.010)	0.352 (0.014)	0.345 (0.014)	0.731
Age	21.499 (0.067)	21.474 (0.094)	21.525 (0.096)	0.630
Time in debating	2.467 (0.022)	2.453 (0.031)	2.481 (0.031)	0.503
Past achievements	7.524 (0.275)	7.454 (0.389)	7.594 (0.389)	0.650
Local nationality	0.148 (0.008)	0.153 (0.011)	0.144 (0.010)	0.546
Left to right (0-10) political ideology scale	3.515 (0.041)	3.537 (0.058)	3.493 (0.058)	0.487
Unique debaters	462	233	229	
Observations	2238	1119	1119	

Notes: P-value is from a one-way ANOVA on ranks (Kruskal-Wallis) test comparing the two groups.

Table A.3: Self-persuasion, robustness to clustering at the room level

Time of elicitation:	Pre-debate			Post-debate		
	(1) Factual Beliefs	(2) Confidence	(3) Revealed Attitudes	(4) Factual Beliefs	(5) Confidence	(6) Revealed Attitudes
Proposition alignment in:						
Assigned to proposition	7.157 (1.184)	5.795 (1.075)	0.097 (0.100)	5.055 (1.289)	7.963 (1.378)	0.200 (0.093)
Debaters	473	473	473	470	274	470
Observations	2217	2213	2212	2171	1286	2169
$R^2$	0.213	0.104	0.199	0.227	0.111	0.228

Notes: Pooled ordinary least square model. Standard errors in parentheses are clustered at the room level, which varies at the team level over time. All specifications include question fixed effects. Each round, debaters are randomly assigned to argue either as proposition or opposition. The outcome of columns 1-3 is our measure of post-debate alignment with the proposition in either Factual Beliefs, Confidence, or Revealed Attitudes. The outcome of columns 4-6 is our measure of alignment with the proposition in either Factual Beliefs, Confidence, or Revealed Attitudes—either at pre-debate or post-debate. For all outcomes, higher values denote greater alignment with the proposition. The number of observations is determined by valid responses from debaters over 5 (4 in Rotterdam) rounds of debate. Post-debate Confidence was collected only at online tournaments.

Table A.4: Pre-debate self-persuasion, robustness to the omission of fixed effects

Sample:	All tournaments			Munich and Rotterdam (Offline)			Amsterdam and LSE (Online)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Proposition alignment in:	Factual Beliefs	Confidence	Revealed Attitudes	Factual Beliefs	Confidence	Revealed Attitudes	Factual Beliefs	Confidence	Revealed Attitudes
Assigned to proposition	7.727 (1.301)	5.982 (1.014)	0.114 (0.121)	5.900 (2.115)	4.381 (1.504)	0.300 (0.150)	8.938 (1.644)	7.036 (1.359)	-0.005 (0.174)
Debaters	473	473	473	196	196	196	277	277	277
Observations	2217	2213	2212	884	883	883	1333	1330	1329
R <sup>2</sup>	0.021	0.024	0.000	0.012	0.014	0.006	0.027	0.032	0.000

*Notes:* Random effects linear regression model with standard errors (in parentheses) clustered at the team level. This table replicates the analysis in Table 2 excluding question fixed effects. Each round, debaters are randomly assigned to argue either as proposition or opposition. The outcome is our measure of pre-debate alignment with the proposition in either Factual Beliefs, Confidence, or Revealed Attitudes. For all three outcomes, higher values denote greater alignment with the proposition. The support of Factual beliefs and Confidence includes integers between 0 and 100, while Revealed Attitudes includes integers between -4 and 4. The number of observations is determined by valid responses from debaters over 5 (4 in Rotterdam) rounds of debate.

Table A.5: Political polarization

Time of elicitation:	Pre-debate			Post-debate		
	(1)	(2)	(3)	(4)	(5)	(6)
Proposition alignment in:	Factual Beliefs	Confidence	Revealed Attitudes	Factual Beliefs	Confidence	Revealed Attitudes
<i>Panel a). Excluding neutral motions</i>						
Politically aligned with proposition	3.858 (1.504)	0.426 (1.358)	0.468 (0.129)	0.348 (1.472)	-2.492 (1.663)	0.271 (0.135)
Debaters	462	462	462	461	270	461
Observations	1786	1782	1781	1756	892	1754
R <sup>2</sup>	0.182	0.094	0.240	0.238	0.163	0.236
<i>Panel b). All motions</i>						
Politically aligned with proposition	2.386 (1.269)	0.945 (1.278)	0.310 (0.111)	0.178 (1.283)	-1.600 (1.525)	0.200 (0.117)
Debaters	463	463	463	462	271	462
Observations	2178	2174	2173	2141	1277	2139
R <sup>2</sup>	0.199	0.086	0.206	0.233	0.123	0.227

*Notes:* Random effects linear regression model with standard errors (in parentheses) clustered at the team level. All specifications include question fixed effects. The outcome in columns 1-3 is our measure of pre-debate alignment with the proposition in either Factual Beliefs, confidence, or Revealed Attitudes. The outcome in columns 4-6 is the post-debate alignment analog. The number of observations is determined by valid responses from debaters over 5 (4 in Rotterdam) rounds of debate. This categorization is based on a small survey we did with 23 debaters in April 2021 to assess the robustness of results in Table 4. Motions were categorized as being left or right wing on a 5 points scale. We call a motion left (right) leaning if the average rating from debaters is below (above) 3. In panel a we exclude neutral motions from the analysis (average rating between 2.9 and 3.1).

Table A.6: Self-persuasion on day two

Sample:	Proposition alignment in Factual Beliefs	
	(1) All motions	(2) Excluding round 5
Assigned to proposition	4.055 (1.361)	4.027 (1.519)
Debaters	254	254
Observations	1266	1012
$R^2$	0.297	0.182

*Notes:* Random effects linear regression model with standard errors (in parentheses) clustered at the team level. All specifications include question fixed effects. The outcome is our measure of alignment with the proposition in Factual Beliefs obtained from asking debaters on day 2 of the competition the same 5 factual questions related to the motions that they were asked at baseline. Higher values denote greater alignment with the proposition. This data was collected only at the online competitions. Column 2 excludes the fifth round of each tournament, which is the only one that takes place on day 2. The number of observations is determined by valid responses from debaters over 5 (4 in column 2) rounds of debate.

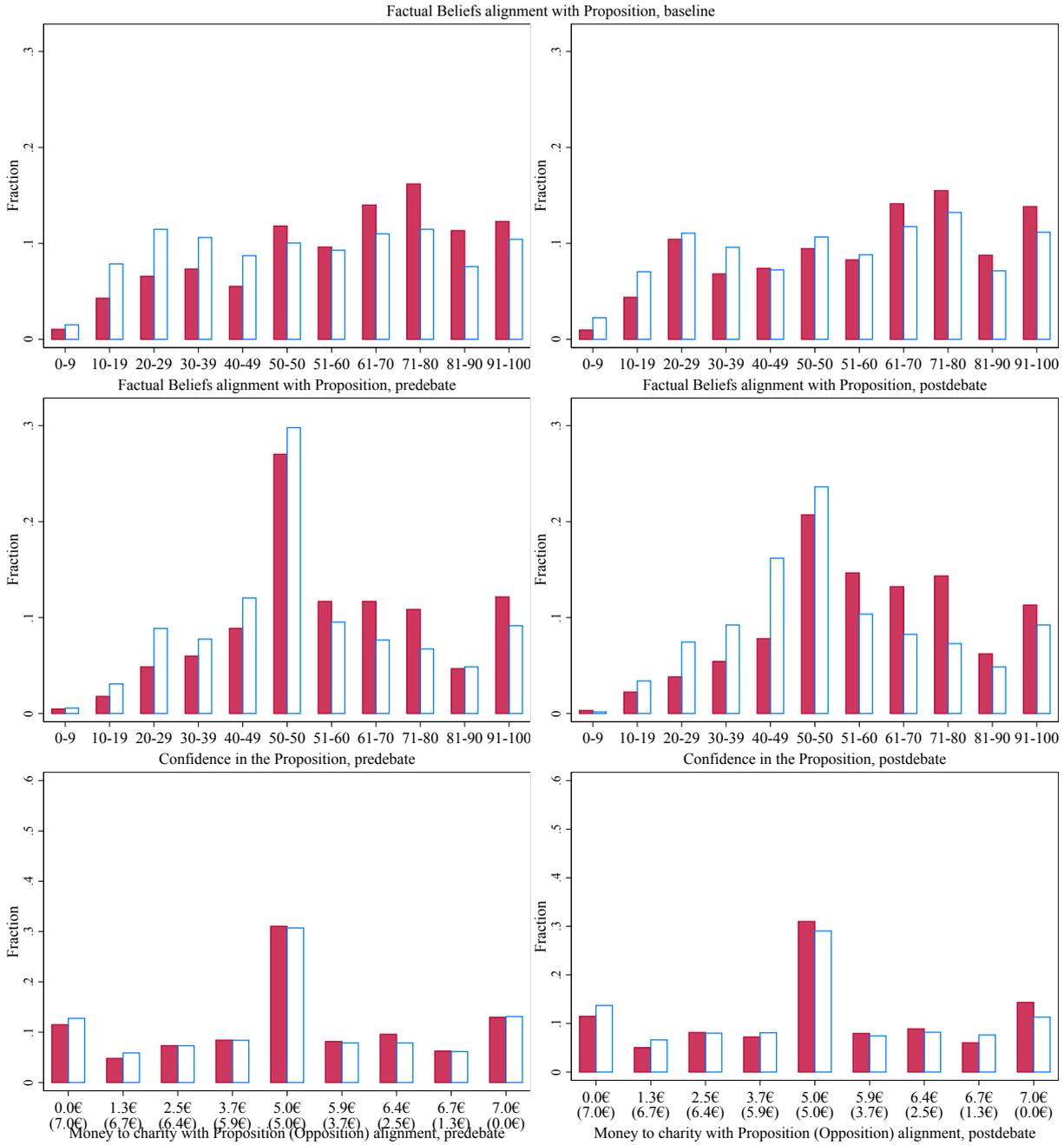
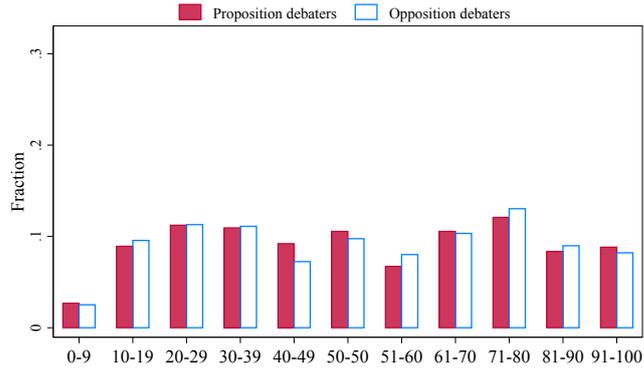


Figure A.1: Distribution of alignment

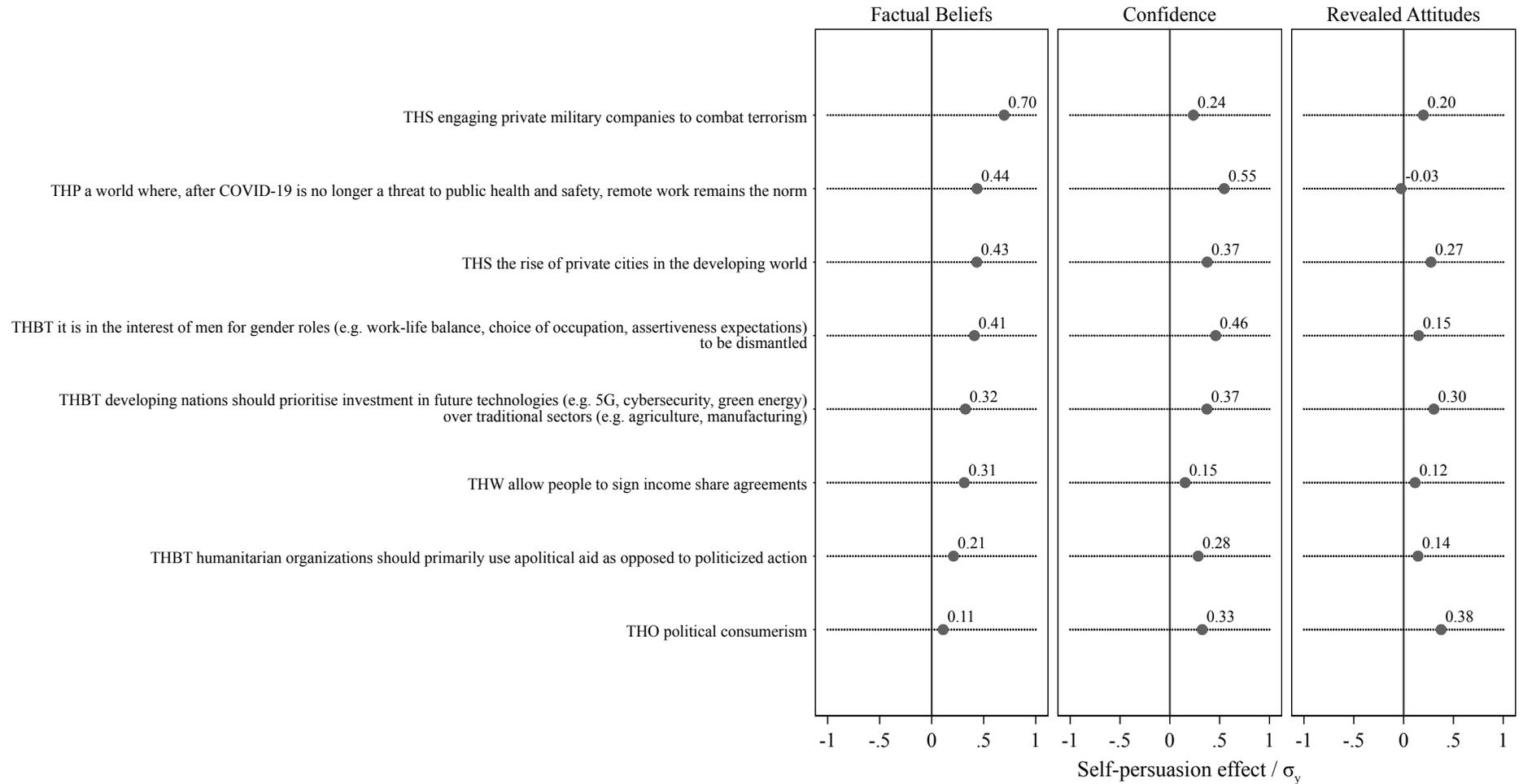


Figure A.2: Self-persuasion adjudicators' predictions by motion, ordered by predicted effect size in Factual Beliefs. We show only 8 out of 10 online motions, due to the sensitive nature of some of the motions'. Our analysis is based on all 10 online motions.

## B Robustness to experimenter demand

Subjects who infer the research hypotheses under investigation may distort their reports to help the researchers prove their hypotheses, or answer in a way that they think is expected of them. In our study, incentives for accuracy should mitigate such distortions, but may not entirely eliminate them. We therefore asked subjects in the final survey of our experiment to write down in an open field text box what they thought the research was trying to demonstrate.

Table B.1: Categorization of debaters' response

Persuasion incentives cause self-persuasion	0.187
Alignment helps being persuasive	0.040
Better informed debaters are more persuasive	0.075
Views change through the debate	0.244
Overly generic answer	0.292
Other research questions	0.312
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Respondents that answered the open-field question	401
Observations	473

*Notes:* Open-field answers are categorized by a research assistant; each answer may be assigned multiple categories when the respondent guesses multiple research questions. We report shares of respondents in each category among the 85 percent of debaters in our sample who answered this open-field question.

In Table B.1 we report the result of a manual categorization of non-blank responses (85 percent of the sample). Among these, 29 percent give a generic answer (e.g. “Game-theory”), while the rest seem to have in mind some concrete research hypotheses. The majority of subjects reported fairly sophisticated guesses.<sup>1</sup> The most frequent remaining categories are our residual category “Other research questions”, that includes questions that were not part of our pre-registered hypotheses (e.g. how knowledgeable debaters are compared to the general population, how salience of authority affects trust in factual evidence, whether greater availability of factual arguments increases persuasiveness). Almost 20 percent of subjects guessed the primary research hypothesis of self-persuasion.

If experimenter demand drives our treatment effects, we should estimate smaller treatment effects when we exclude participants who correctly guessed the research hypothesis. In Table B.2 we therefore re-estimate our main result without this category of subjects. Reassuringly, we find that the

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<sup>1</sup>Some responses were fairly accurate in capturing many of the research hypotheses (e.g. “1. See how engaging with motion from a certain assigned point of view influences perception of facts in accordance to position in debate 2. how belief/being convinced of position in debate affects debaters persuasiveness (that’s why you gave us scores on persuasion and rhetoric as well) → How debating from assigned point of view affects opinion and how that affects performance in debate”, some others completely miss the main hypotheses (e.g. “Connection between knowledge and persuasiveness? - Not sure, would love to find out!”), and some others are overly generic (e.g. “Game-theory”, “Curse the competition”).

magnitudes of the differences in all three outcomes between proposition and opposition speakers, estimated for the subset of “unaware subjects”, are very similar to the ones estimated in the full sample, indicating that demand effects do not drive our results.<sup>2</sup>

Table B.2: Replication of main results excluding subjects who could guess the research hypothesis at the end of the tournament

Proposition alignment in:	Pre-debate			Post-debate		
	(1) Factual Belief	(2) Confidence	(3) Revealed Attitudes	(4) Factual Belief	(5) Confidence	(6) Revealed Attitudes
Assigned to proposition	6.948 (1.144)	5.732 (1.070)	0.0491 (0.102)	3.901 (1.443)	8.378 (1.445)	0.150 (0.103)
Debaters	398	398	398	395	229	395
Observations	1856	1852	1851	1813	1068	1811
$R^2$	0.226	0.104	0.183	0.227	0.158	0.206

*Notes:* Column 1 and 4 replicate analysis in column 1 of Table 2 and Table 5 excluding subjects who guessed the research hypothesis of self-persuasion on facts. Column 2 and 5 replicate analysis in column 2 of Table 2 and Table 5 excluding subjects who guessed the research hypothesis that debaters who be relatively more confident of the merits of their own position. Column 3 and 6 replicates analysis in column 3 of Table 2 and Table 5 excluding subjects who guessed the research hypothesis of self-persuasion on the values of social causes.

## C Mediation

Our discussion proposes that persuasion goals can have both a direct effect on belief alignment due to strategic choice of beliefs and an indirect effect due to the cognitive constraints that generate bias when debaters sample an unbalanced set of arguments to prepare their speech. In a linear framework, such direct and indirect effects can be assessed through the following system of structural equations

$$\begin{aligned}
 Y_i &= \alpha_1 + \beta_1 T_i + \phi_1 X_i + \epsilon_{i1} \\
 M_i &= \alpha_2 + \beta_2 T_i + \phi_2 X_i + \epsilon_{i2} \\
 Y_i &= \alpha_3 + \beta_3 T_i + \gamma M_i + \phi_3 X_i + \epsilon_{i3}
 \end{aligned}
 \tag{C.1}$$

where standard notation is used for expositional purposes:  $Y_i$  is the outcome of interest,  $T_i$  is the treatment variable,  $M_i$  is the intermediate post-treatment outcome that mediates the treatment effect, and  $X_i$  is a vector of controls.  $\beta_1$  is the average treatment effect (ATE), which captures both direct

<sup>2</sup>De Quidt et al. (2018) propose to estimate bounds on the impact of experimenter demand effects through the use of additional treatments that increase awareness among subjects of the experimenters’ research hypotheses. Providing such exogenous variation of awareness of research hypotheses was not feasible in the context of our field experiment.

and indirect effects of the treatment on the main outcome of interest. If the structural equations are correctly specified, a *sequential ignorability* assumption allows us to interpret  $\gamma\beta_2$  as the *causal* indirect effect of  $T_i$ , mediated through  $M_i$ , on  $Y_i$  Imai et al. (2010b).

Sequential ignorability requires that (i) conditional on  $X_i$ , the potential values of the outcome and the mediator are distributed independently of the treatment, and (ii) conditional on  $T_i$  and  $X_i$ , the potential outcome is distributed independently of the observed mediator. Both conditions are fairly strong. Because our treatment assignment is randomized, the first condition is met by design. However, the second condition does not directly follow from random assignment, and is hard to test. If the second condition is met, we would expect that the outcome and the mediator are uncorrelated within treatment. Figure C.1 provides supporting evidence of the lack of such correlation.

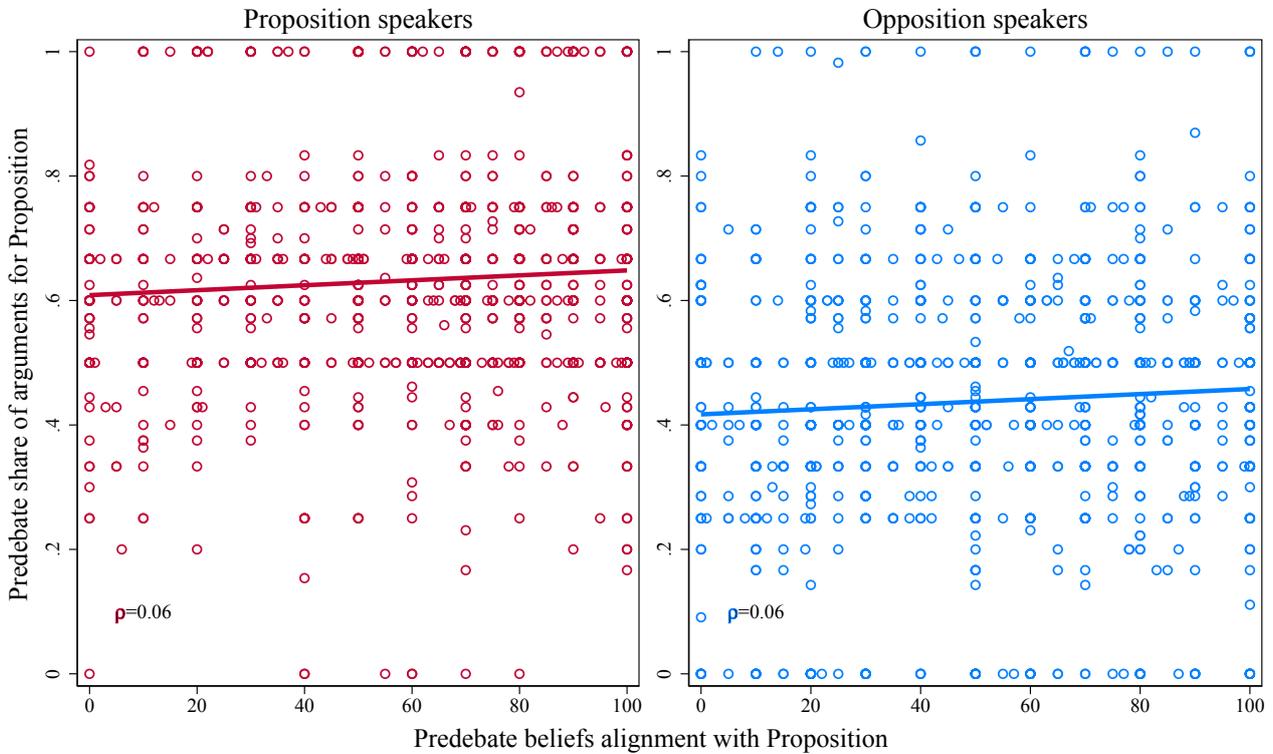


Figure C.1: Correlation between share of proposition arguments and pre-debate belief alignment, within each side of the debate

In Figure C.2 we include diagrams that illustrate potential causal links between the treatment, mediating factors, and the outcome. Assuming sequential ignorability rules out causal links between mediators (sub-figures (d) and (e)), but allows for multiple downstream causal relationships from treatment, through mediators, to the outcome of interest (sub-figures (a) to (c)), so that by estimating  $\gamma\beta_2$  from C.1 we could directly obtain a valid estimate of the causal effect of the treatment mediated

through  $M_i$ .

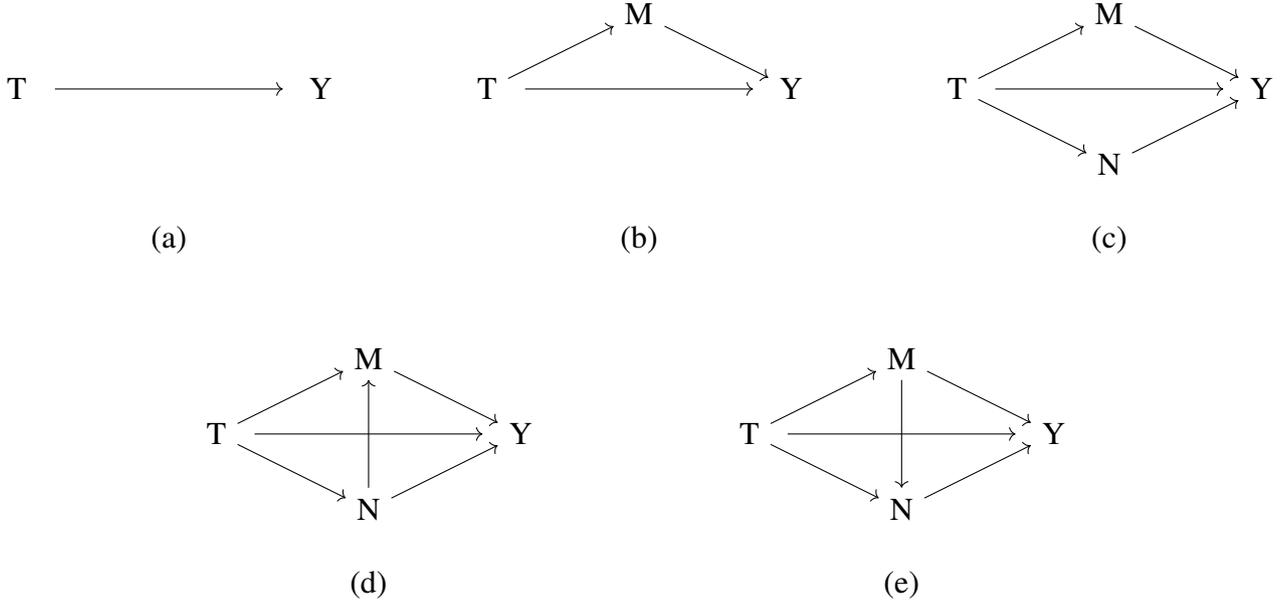


Figure C.2: Diagrams representing possible causal mechanisms between treatment, mediating outcomes, and main outcome

*Notes:* In (a), the outcome can only be affected directly by the treatment variable. In (b), the treatment affects both the outcome directly and an intermediate mediator; the mediator in turn affects the outcome. In (c), the treatment affects both the outcome directly and two intermediate mediators; both mediators in turn affect the outcome. In (d) and (e), the treatment affects both the outcome directly and two intermediate mediators; both mediators in turn affect the outcome, and mediators also affect one another.

In the potential outcome framework with binary treatment  $t \in \{0, 1\}$  and one mediator it is straightforward to derive the causal mediated effect directly as a component of the average treatment effect  $\tau_i = Y_i(1) - Y_i(0)$ , which can be equivalently written as  $Y_i(1, M_i(1)) - Y_i(0, M_i(0))$ . With some algebra, it is simple to obtain that

$$\begin{aligned}
 2[Y_i(1, M_i(1)) - Y_i(0, M_i(0))] &= \overbrace{Y_i(1, M_i(1)) - Y_i(1, M_i(0))}^{\delta_i(1)} + \overbrace{Y_i(0, M_i(1)) - Y_i(0, M_i(0))}^{\delta_i(0)} + \\
 &+ \overbrace{Y_i(1, M_i(1)) - Y_i(0, M_i(1))}^{\zeta_i(1)} + \overbrace{Y_i(1, M_i(0)) - Y_i(0, M_i(0))}^{\zeta_i(0)}
 \end{aligned}$$

where  $\delta(t)$  defines the indirect effect of the treatment in treatment  $t$ , and  $\zeta_i(t)$  defines the direct effect of the treatment holding constant the level of the mediator at the treatment  $t$  level. When  $\delta_i(t) = \delta_i$  and  $\zeta_i(t) = \zeta_i$  for any  $t$ , there is no interaction between treatment and mediator, and the ATE can

simply be expressed as  $\tau_i = \delta_i + \zeta_i$ , yielding a simple decomposition of the ATE in average causal mediated effect (ACME) and average direct effect (ADE).

To identify the ACME of persuasion goals on factual belief alignment with proposition ( $b_i$ ) through the share of proposition arguments considered during preparation period ( $s_i$ ), we estimate the following random effects models with standard errors clustered at the team level

$$\textit{Model 1:} \quad b_{i,q} = \alpha_1 + \beta_1 \textit{proposition}_{i,q} + \phi_1 X_i + \epsilon_{i1,q}$$

$$\textit{Model 2:} \quad s_{i,q} = \alpha_2 + \beta_2 \textit{proposition}_{i,q} + \phi_2 X_i + \epsilon_{i2,q}$$

$$\textit{Model 3:} \quad b_{i,q} = \alpha_3 + \beta_3 \textit{proposition}_{i,q} + \gamma s_{i,q} + \phi_3 X_i + \epsilon_{i3,q}$$

and use sampling distributions of the parameter estimates from *model 1* to simulate potential outcomes  $b_{i,q}(\textit{proposition}_{i,q} = 1)$  and  $b_{i,q}(\textit{proposition}_{i,q} = 0)$ , from *model 2* to simulate potential outcomes  $s_{i,q}(\textit{proposition}_{i,q} = 1)$  and  $s_{i,q}(\textit{proposition}_{i,q} = 0)$ , and from *model 3* to simulate potential outcomes  $b_{i,q}(1, s_{i,q}(1))$ ,  $b_{i,q}(0, s_{i,q}(1))$ ,  $b_{i,q}(1, s_{i,q}(0))$ , and  $b_{i,q}(0, s_{i,q}(0))$ . We reproduce this estimation for alignment with proposition in Confidence and Revealed Attitudes as main outcomes. Table C.1 reports the results from this exercise.

Table C.1: Decomposition of pre-debate treatment effect in mediated and direct effect

Sample: Proposition alignment in:	All tournaments			Offline			Online		
	Factual Beliefs	Confidence	Revealed Attitudes	Factual Beliefs	Confidence	Revealed Attitudes	Factual Beliefs	Confidence	Revealed Attitudes
Average causal effect mediated by $s_i$ (ACME)	1.031 (0.653)	2.614 (0.560)	0.066 (0.048)	1.793 (1.230)	2.303 (1.084)	0.133 (0.079)	0.749 (0.617)	3.157 (0.576)	0.007 (0.057)
Average direct effect (ADE)	6.179 (1.336)	3.277 (1.080)	0.046 (0.104)	4.612 (2.135)	2.046 (1.788)	0.165 (0.161)	7.008 (1.547)	3.749 (1.408)	-0.019 (0.140)
Average treatment effect (ATE)	7.210 (1.184)	5.891 (0.975)	0.113 (0.095)	6.405 (1.945)	4.349 (1.487)	0.298 (0.144)	7.757 (1.353)	6.906 (1.282)	-0.012 (0.134)
ACME/ATE	0.143	0.444	0.584	0.280	0.530	0.446	0.097	0.457	-0.583

*Notes:* Estimates obtained following the procedure outlined in Appendix D of Imai et al. (2010a); we estimate the Linear Structural Equation Model using random effects regressions with question fixed effects as in Table 2, and we use the estimated sampling distributions to draw 100 simulations of potential mediators and potential outcomes. We average the differences of potential outcomes across the 100 simulations to obtain an estimate of the mediated effect. We repeat the procedure 500 times from bootstrap samples to obtain standard errors of the estimates.

Table C.2: Decomposition of post-debate treatment effect in mediated and direct effect

Sample: Proposition alignment in:	Online		
	Factual Beliefs	Confidence	Revealed Attitudes
Average causal effect mediated by $s_i$ (ACME)	0.897 (0.580)	4.586 (0.580)	0.028 (0.053)
Average direct effect (ADE)	5.177 (1.565)	3.735 (1.303)	0.047 (0.143)
Average treatment effect (ATE)	6.074 (1.538)	8.320 (1.229)	0.074 (0.134)
ACME/ATE	0.148	0.551	0.378

*Notes:* Estimates obtained following the procedure outlined in Appendix D of Imai et al. (2010a): we estimate the Linear Structural Equation Model using random effects regressions with question fixed effects as in Table 5, and we use the estimated sampling distributions to draw 100 simulations of potential mediators and potential outcomes. We average the differences of potential outcomes across the 100 simulations to obtain an estimate of the mediated effect. We repeat the procedure 500 times from bootstrap samples to obtain standard errors of the estimates.

## D Materials

In this section we present instructions and questions of each survey, and discuss important features of implementation. We also explain any differences in the implementation of offline and online tournaments. All survey templates from the tournament in Munich (offline) and Amsterdam (online) are provided at <https://osf.io/u7ekr/>.

### D.1 General remarks

We take several steps to collect high quality data in a confidential manner. First, all surveys begin with a cover page containing brief instructions to (i) inform subjects of how much time they have to complete the survey, and (ii) remind subjects of the procedure to collect incentive compatible beliefs. Second, each survey is linked to the individual who filled it through a personal identifier. These IDs allow data to be collected and payments to be carried out confidentially. We ask debaters to enter their ID on the cover page of each of their surveys.

At offline tournaments, every study participant (debaters, adjudicators, and enumerators) wears a name tag that includes their ID. Before collecting the survey, enumerators double-check that the ID entered by each debater (or adjudicator) on the cover page of their survey matches the one on the name tag. At online tournaments, participant IDs were sent to participants via email the day before the tournament. On the day of the tournament, before the first survey, each enumerator was

responsible for double-checking with a small group of debaters and adjudicators that they had their participant IDs.

## **D.2 General instructions**

We provided a document with general instructions for answering the surveys throughout the tournament. In particular, this explains how belief elicitations are incentivized using the Quadratic Scoring Rule for binarized outcomes (Harrison et al., 2014), how charitable allocations are paid out, and general payment procedures. All subjects are given 10 minutes to carefully read these general instructions right before the baseline survey begins. To make sure that procedures are adequately understood, if subjects miss their opportunity to read the general instructions we exclude them from the study.<sup>3</sup> The original content of these instructions is provided below. We separately report the instructions for offline and online tournaments.

### **D.2.1 General instructions (offline)**

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### **General Instructions**

Please read the following instructions carefully and keep them in mind, as they contain information that is relevant for the surveys we will ask you to complete during the next two days. We kindly ask you to use the time allocated to each survey to focus exclusively on answering the questions in front of you; throughout these times no information regarding the debates will be provided. Please answer each question carefully, don't use your phone and don't interact with others. Our instructions are never deceptive. All of your answers are treated confidentially and used for research purposes only.

#### **Assessing factual statements**

Spread across the various surveys, there are 34 questions that are marked by an "\$", for which you can earn money. After you completed the last survey, we will pay you based on one randomly selected answer. While you will get paid for only one of your answers, every question might be the one that counts.

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<sup>3</sup>They are allowed to answer the surveys, but their data is discarded.

Questions marked by an “\$” ask you to state the likelihood (in percent) that a given statement is true. Most such statements are designed to assess your factual knowledge. There will be no trick questions. Moreover, all sources we refer to actually exist and are of high quality, but the actual fact may be either true or not true. As an example, consider the following statement.

*According to Eurostat, more than 30 percent of live births in Germany in 2016 were outside of marriage.*

This statement is true if Eurostat indeed reported this finding. It is false if Eurostat reported a different finding. You will be asked to provide your belief as to how likely you think it is that this statement is true. If this answer is selected for payment, you will earn either 30 euros or nothing. The procedure that determines how likely it is that you win the 30 euros assures that the closer you are to the correct answer (either 0 or 100 percent), the higher is your probability of winning the money.

Moreover, the procedure assures that you maximize your chance of winning money by stating your true belief (between 0 and 100 percent). So if you are almost certain that a given statement is true, then you should state a belief that is very high. If you are almost certain that a given statement is false, then you should state a belief that is very low. If you are completely uncertain, you maximize your chance of winning by stating a belief that is close to 50 percent.

The Procedure Box below provides more comprehensive information about the exact payment mechanism. But note that it is not important that you understand the procedure in detail. What matters is that you know that you maximize your probability of winning when you report your true belief - if you under- or overstate your belief, you will reduce your chance of winning the 30 euros.

### **Donating to charities**

For some questions in the survey, you will be able to allocate monetary endowments between different charities. This is money that we make available from our budget for you to allocate, according to your preferences, to charities that have different missions. One of the allocations you make will be selected at random and we will transfer the money to the relevant charities. While we will implement only one of your allocations, every allocation might be the one that counts.

The surveys will also feature further questions that allow you to earn more money for yourself. The instructions for these questions are simple and will be provided above the relevant question.

### **Procedure Box**

How a given answer maps into your chance of winning 30 euros is based on a formula. This formula is designed to make sure that you maximize your chance of winning if you report your true belief that a given statement is true.

Suppose that the correct answer is given by  $R$ , which is equal to 1 if the statement is true and 0 if the statement is false. The variable  $r$  is your report—the likelihood that you attribute to the statement being true (from 0 to 100 percent). The winning probability for the prize is then given by:

$$\text{winning probability} = 100 - 100 \times (R - r/100)^2$$

**Example:** Suppose again that you are tasked with assessing the following statement: *According to Eurostat, more than 30 percent of live births in Germany in 2016 were outside of marriage.* And suppose that your belief that the statement is true is 63 percent. The following table shows your winning probability based on the formula. The columns represent a number of hypothetical answers you may give. As you can see, you maximize your chance of winning by reporting your true belief.

	Report 1	Report 2	<b>Report 3</b>	Report 4
Hypothetical report	22	35	<b>63</b>	89
Expected winning probability if <b>your belief</b> that the statement is true is <b>63%</b>	59.9%	68.9%	<b>76.7%</b>	69.9%

### Payment

On Sunday, we will pay out your earnings in cash. To determine your earnings for the assessment of factual statements, we first randomly draw the question that is relevant for your payment. We then determine your winning probability based on the true answer and your reported answer. Finally, a computer program constructs a virtual urn with only white and black balls, where the share of white balls equals your winning probability. If the computer then draws a white ball from the urn, then you will win the 30-euro prize. This is a fair and transparent procedure to pay you the prize with the winning probability you have earned based on the quality of your answers.

If the question that is drawn for payment is from a round that you missed, then there will be no new draw and you will not earn any money for this type of question. If you would like us to send you receipts of the charity donation based on your choice, then please leave us your email address when

you collect your payment.

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### D.2.2 General instructions (online)

Below we present general instructions for debaters. Adjudicators had similar instructions.

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## General Instructions

Please read the following instructions carefully and keep them in mind, as they contain information that is relevant for the surveys we will ask you to complete during the next two days. We kindly ask you to use the time allocated to each survey to focus exclusively on answering the questions in front of you; throughout these times no information regarding the debates will be provided. Please answer each question carefully, don't use your phone and don't interact with others. Our instructions are never deceptive. All of your answers are treated confidentially and used for research purposes only. If anything is unclear, don't hesitate to contact the researchers (egon.tripodi@essex.ac.uk) and we will aim to reply immediately.

### Assessing factual statements

Spread across the various surveys, there are 35 questions that are marked either by a "(5 euro prize)" or by a "(50 euro prize)", for which you can earn money. After you completed the last survey, we will pay you based on one randomly selected answer among those marked by a "(5 euro prize)" and one randomly selected answer among those marked by a "(50 euro prize)". While you will get paid for only two of your answers, every question might be the one that counts.

Questions marked by a "(5 euro prize)" or "(50 euro prize)" ask you to state the likelihood (in percent) that a given statement is true. Most such statements are designed to assess your factual knowledge or intuition. There will be no trick questions. Moreover, all sources we refer to actually exist and are of high quality, but the actual fact may be either true or not true. As an example, consider the following statement.

According to Eurostat, more than 30 percent of live births in Germany in 2016 were outside of marriage.

This statement is true if Eurostat indeed reported this finding. It is false if Eurostat reported a different finding.

**You will be asked to provide your belief as to how likely you think it is that this statement is true. You will state a probability between 0 and 100 percent.**

If this answer is selected for payment, you will earn either monetary prize or nothing. The procedure that determines how likely it is that you win the monetary prize assures that the closer you are to the correct answer (either 0 or 100 percent), the higher is your probability of winning the money. The monetary prize is 5 euro for questions marked by a “(5 euro prize)”, and 50 euro for questions marked by a “(50 euro prize)”.

Moreover, the procedure assures that you maximize your chance of winning money by stating your true belief (between 0 and 100 percent). So if you are almost certain that a given statement is true, then you should state a belief that is very high. If you are almost certain that a given statement is false, then you should state a belief that is very low. If you are completely uncertain, you maximize your chance of winning by stating a belief that is close to 50 percent.

The Procedure Box below provides more comprehensive information about the exact payment mechanism. But note that it is not important that you understand the procedure in detail. What matters is that you know that you maximize your probability of winning when you report your true belief - if you under- or overstate your belief, you will reduce your chance of winning the monetary prizes.

#### **Procedure Box**

How a given answer maps into your chance of winning a monetary prize is based on a formula. This formula is designed to make sure that you maximize your chance of winning if you report your true belief that a given statement is true. You may click the following button to get more explanation on the exact procedure.

[More info]<sup>4</sup>

#### **Donating to charities**

For some questions in the survey, you will be able to allocate monetary endowments between different charities. This is money that we make available from our budget for you to allocate, according to your preferences, to charities that have different missions. One of the allocations you make will be selected at random and we will transfer the money to the relevant charities. While we will implement only one of your allocations, every allocation might be the one that counts.

#### **Payment**

After the tournament, we will pay out your earnings using the payment data you provided. To deter-

mine your earnings for the assessment of factual statements, we first randomly draw the question that is relevant for your payment. We then determine your winning probability based on the true answer and your reported answer. Finally, a computer program constructs a virtual urn with only white and black balls, where the share of white balls equals your winning probability. If the computer then draws a white ball from the urn, then you will win the monetary prize. This is a fair and transparent procedure to pay you the prize with the winning probability you have earned based on the quality of your answers. We repeat this procedure for the 5 euro prize and for the 50 euro prize. You may win none of the prizes, either, or both.

If the questions drawn for payment are from rounds that you missed, then there will be no new draw and you will not earn any money for this type of question. If you would like us to send you receipts of the charity donation based on your choice, then please email us at [egon.tripodi@essex.ac.uk](mailto:egon.tripodi@essex.ac.uk) including your participant ID (D###).

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### D.3 Baseline survey

A 25-minute baseline survey includes the following items:

- Age (open field, suggested to provide a numeric answer).
- Gender (open field).
- Nationality (open field).
- Political ideology scale: *“In politics people sometimes talk of “left” and “right”. Where would you place yourself on this scale, where 0 means the left and 10 means the right?”* (check box).
- Years actively debating on a regular basis. Options: “Less than a year”, “1 to 2 years”, “3 to 4 years”, “At least 5 years”. (check box)
- Times debater got to semifinals in Open/IV tournaments (open field).
- *“What do you think makes a good debater”*. Options: “Choosing arguments strategically”, “Confidence in own position”, “Debating experience”, “Factual knowledge”, “Eloquence” (ranking).<sup>5</sup>
- Incentivized belief elicitation on fifteen factual statements: for each such statement subjects state how likely it is that the fact is true (open field, suggested to provide a numeric answer from 0 to 100).

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<sup>5</sup>Dropped at online tournaments.

- “Did you take part as a speaker at the Munich Research Open 2019?”. Options: “Yes”, “No” (check box).<sup>6</sup>

A key component of this survey was to gather beliefs at baseline regarding the motions that subjects were going to debate. At the same time, we had to avoid that our questions revealed the motions. To obfuscate the relation of these belief elicitation and the motions we elicit beliefs over whether 15 factual statements are true: 5 such statements relate to the in-round motions, 7 are decoy questions, and 3 are control questions.<sup>7</sup> For each team of debaters, control questions are drawn from a pool of 6 questions, and the questions that were not selected for the baseline survey are then included in the endline survey. Comparing responses to the control questions at baseline and endline by different debaters helps uncover to what extent debaters research the questions. We find no evidence that they do.

Decoy questions are designed to look like they could relate to plausible motions for debate. Control questions are facts that not necessarily relate to typical debate topics.

For each motion, we devise multiple factual statements that we phrase as binary states to capture alignment of beliefs with the persuasion goal. Any given question may not have a tight enough link to the motion in debaters’ minds or give rise to a high degree of certainty in debaters’ beliefs and may therefore be ill-suited to pick up a treatment effect. To diversify this risk, at offline tournaments, we come up with 4 questions (A, B, C, D) for each motion and administer them as illustrated in the table below: at baseline, debaters are asked either about fact A or B; pre-debate, debaters are asked either about fact D or C; post-debate debaters are asked either about fact B and C or A and D.

This approach also ensures that (i) no debater is asked the same question twice, and (ii) we protect the baseline and pre-debate belief elicitation from any potential information spillovers.

Timing:	Beginning of Day 1	Day 1 or Day 2	
	Baseline	pre-debate	post-debate
Subgroup 1	A	D	B, C
Subgroup 2	B	C	A, D

After observing very strong compliance at offline tournaments with our request to not discuss the

<sup>6</sup>Only in Rotterdam.

<sup>7</sup>In Rotterdam, 4 statements relate to the in-round motions, and 8 are decoy questions. At the online tournaments, we have only 12 factual statements because we drop control questions.

questions of the survey, we decided to reduce the number of factual statements per motion to three and randomize the order as follows. This approach still ensures that no debater is asked the same question twice.

Timing:	Beginning of Day 1	Day 1 or Day 2	
	Baseline	pre-debate	post-debate
Subgroup 1	A	B	C
Subgroup 2	B	C	A
Subgroup 3	C	A	B

#### D.4 Pre-debate survey

This 5 minute survey is handed out before a debate begins and after preparation time. It includes:

- Incentivized belief elicitation on two factual statements: for each such statement subjects state how likely it is that the fact is true (open field, suggested to provide a numeric answer from 0 to 100).
- Choice of one of 9 monetary allocations, along a concave budget, between a baseline charity and a charity aligned with one of the sides represented in the debate. For an illustration see Figure D.1.
- Questions on the number of arguments considered during preparation time in favor of the proposition:
  - i *How many good arguments did you come up with during the preparation time in favor of the proposition?* (open field, suggested to provide a numeric answer)
  - ii *How many of these arguments would you consider to be very strong?* (open field, suggested to provide a numeric answer between zero and the answer to the previous question)
- Questions on the number of arguments considered during preparation time against the proposition:
  - i *How many good arguments did you come up with during the preparation time against the proposition?* (open field, suggested to provide a numeric answer).
  - ii *How many of these arguments would you consider to be very strong?* (open field, suggested to provide a numeric answer between zero and the answer to the previous question).

Below you see nine potential ways in which you could allocate charitable donations—that are paid by us on your behalf—between two charitable organizations: Oxfam and The Planetary Society .

Oxfam is a major nonprofit group with an extensive collection of operations. Oxfam's programs address the structural causes of poverty and related injustice and work primarily through local accountable organizations, seeking to enhance their effectiveness

The Planetary Society is the world's largest and most influential non-profit space organization. The society advocates for space and planetary science funding in government, invests in inspiring educational programs, and funds groundbreaking space science and technology

How would you like to allocate these donations? (check only one box)

Choose one option	<input type="checkbox"/>									
You want to give	0.0	1.3	2.5	3.7	5.0	5.9	6.4	6.7	7.0	euro to Oxfam
and	7.0	6.7	6.4	5.9	5.0	3.7	2.5	1.3	0.0	euro to the Planetary Society
A total of	7.0	8.0	8.9	9.6	10.0	9.6	8.9	8.0	7.0	euro goes to charity

Figure D.1: Illustration of charitable donations allocation question

Both factual statements are meant to capture whether beliefs are aligned with the motion after the debate. The first statement features a real-world fact. The second statement elicits confidence in the arguments of the proposition side of the debate by asking:

*Statement: Excluding the debate happening in this room, in at least half of the parallel debates of this round, one of the two teams on the Government side of this motion will rank 1st.*

*Q2\$: How likely do you think it is that the above statement is true? \_\_\_% (write a number from 0 to 100)*

For each motion, we select two charities that we expect to be aligned with one side of the debate. We randomly determine which of these two charities features in the pre-debate survey. The other charity features in the post-debate survey. In Munich we also randomize the baseline charity between Oxfam and Opportunity International. At all other tournaments, the baseline charity is always Opportunity International.

## D.5 Post-debate survey

This 5 minute survey is handed out right after each debate. It includes:

- Incentivized belief elicitation on two factual statements: for each such statement subjects state how likely it is that the fact is true (open field, suggested to provide a numeric answer from 0 to 100). The first is for the factual belief elicitation and the second is for the confidence

elicitation.<sup>8</sup>

- Subjective ranking of team performance in the debate.<sup>5</sup>
- Choice of one of 9 monetary allocations, along a concave budget, between a baseline charity and a charity aligned with one of the sides represented in the debate. For an illustration see Figure D.1.
- Questions on the number of arguments considered during preparation time in favor of the proposition:<sup>9</sup>
  - i *After taking part in this debate, how many good argument can you think of in favor of the proposition?* (open field, suggested to provide a numeric answer)
  - ii *How many of these arguments would you consider to be very strong?* (open field, suggested to provide a numeric answer between zero and the answer to the previous question)
- Questions on the number of arguments considered during preparation time against the proposition:<sup>9</sup>
  - i *After taking part in this debate, how many good arguments can you think of against the proposition?* (open field, suggested to provide a numeric answer).
  - ii *How many of these arguments would you consider to be very strong?* (open field, suggested to provide a numeric answer between zero and the answer to the previous question).

## D.6 Endline survey

At offline tournaments the endline is a lengthier survey in which we measure perceived alignment of each factual statement and charity with respect to the motion along with a short exit set of questions. Due to time constraints of the online format we drop the measurement of perceived alignment, and we bundle this survey with the last post-debate survey.

## D.7 Endline survey (offline tournaments)

This 20-minute survey takes place right after the last round of debates. It includes:

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<sup>8</sup>At offline tournaments, both statements are for the factual belief elicitation, and we do not elicit confidence post-debate.

<sup>9</sup>Added at online tournaments.

- A question that we use to assess how debaters think that beliefs about facts that we ask and charities they can donate to relate to alignment with the motions. An illustration of the precise wording of this question is provided in Figure D.2.
- Incentivized belief elicitation on four factual statements: for each such statement subjects state how likely it is that the fact is true (open field, suggested to provide a numeric answer from 0 to 100).
- Open text box in which subjects are asked to tell us what they think the research was about.<sup>10</sup>

Three of the four factual statements are control questions of the kind included in the baseline survey. One fact pertains the performance of two actual debaters in the Munich Research Open, and had a longer preamble than other belief elicitation questions:

*The next question is about the performance of two actual debaters in **a different tournament: the Munich Research Open that took place two weeks ago**<sup>11</sup>. We will call them debater A and debater B. Both debaters were representing the Government in the motion that “THBT governments should stop funding scientific programmes that have no immediate benefit for humankind (such as space travel and exploration, human cloning)”, but they gave different responses to the factual question in the pre-debate survey:*

*Debater A believed that the statement “More than 10 of the following 15 innovations are a consequence of inventions made in the pursuit of space travel: camera phones, scratch resistant lenses, electric light, CAT scans, LEDs, land mine removal, athletic shoes, penicillin, water purification systems, the internet, home insulations, wireless headsets, baby formula, portable computers” was true with 75% chance. Debater B believed that the same statement was true with 10% chance.*

*We asked adjudicators to provide a broad measure of each debaters’ persuasiveness. Now consider the following statement.*

*Statement: Debater A obtained a higher persuasiveness score than Debater B in the relevant debate. Q6\$: How likely do you think it is that the above statement is true? \_\_\_ % (write a number from 0 to 100)*

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<sup>10</sup>We felt that the alignment question was revealing too much of what the study was about, so to get a better sense of whether subjects understood what hypotheses were being tested with the data collected in pre-debate and post-debate surveys, in Rotterdam, we decided to move this question to the last post-debate survey.

<sup>11</sup>In Rotterdam. In Munich, the orange text is replaced by “this tournament”.

Q1: For this question, you can earn up to 5 euros. Consider the following motion, which was debated during the event:

“During periods of national housing shortages, this House would forcibly take ownership of privately owned homes which are not lived in by their owners”.

Now consider someone who is strongly in favor of this motion, i.e. someone whose personal views are strongly aligned with the motion. For each statement in the table below, please indicate whether such a person, who is strongly aligned with the motion, is more likely to believe that the statement is true or more likely to believe that the statement is false. For each statement (each row of the table), give your answer by entering one (and only one) cross in the appropriate box.

We will randomly select one of these six statements and pay you based on your selection as follows: You will earn 5 euros for sure if your response is the same as the response that is selected most frequently by all other participants answering the same question.

	Someone aligned with the motion is...		
	... more likely to believe that this statement is <b>true</b>	... more likely to believe that this statement is <b>false</b>	.. equally likely to believe that this statement is <b>true or false</b>
Statement 1: According to the English Housing Survey, the number of second homes in the UK more than doubled between 1995 and 2013			
Statement 2: Under current UK regulation, squatters who live in and maintain unoccupied buildings enjoy protection under the law and can never be evicted without a court order			
Statement 3: According to an academic study published this year, over 5 percent of properties in England and Wales are low-use properties, defined as a property that is not registered as the primary residence of any individual			
Statement 4: According to research by the newspaper the Independent in 2018, more than one third of new-build luxury apartments and houses in Central London lies empty			
Statement 5: Action on Empty Homes* is an NGO supporting a cause that is especially important.			
Statement 6: The Land Is Ours** is an NGO supporting a cause that is especially important.			

\*Action on Empty Homes is a UK NGO campaigning for more empty homes to be brought into use for people in housing need. It raises awareness of the waste of long-term empty homes and campaigns for changes to national policy to bring more homes into use..

\*\*The Land Is Ours campaigns peacefully for access to the land, its resources, and the decision-making processes affecting them. Among other things, it advocates 'Use It Or Lose It' programme where empty buildings are forfeit or put on a tax escalator, where the owner can lose title after one year.

Figure D.2: Example of alignment question in the endline survey

### D.7.1 Endline survey (online tournaments)

This 5-minute survey is tagged to the last post-debate survey. It includes:

- Incentivized belief elicitation on five factual statements: for each such statement subjects state how likely it is that the fact is true (open field, suggested to provide a numeric answer from 0 to 100). The five statements mirror the ones used at Baseline to measure alignment of factual beliefs with the proposition of rounds 1-5.
- Open text box in which subjects are asked to tell us what they think the research was about.

- Questions on knowledge of the researchers and their research.

## **D.8 Adjudicator survey**

The adjudicator survey differs substantially between offline and online tournaments. Hence, we present it separately.

### **D.8.1 Adjudicator survey (offline tournaments)**

Adjudicators are asked to independently provide individual scores of each debater’s overall persuasiveness before filling out the shared score sheet with other adjudicators.

Adjudicators are asked to provide a broad persuasiveness score, on a scale from 1 to 10 where 1 is “Not at all persuasive” and 10 “Extremely persuasive”. The original instructions given to adjudicators on how to answer and interpret this question are provided below:

*Without discussing with the other adjudicators, please evaluate the persuasiveness of each debater. We consider a debater persuasive, if she would do well at convincing a general audience of her position. Therefore, please provide a broad measure of persuasiveness that captures the quality of arguments as well as speaking ability, body language and any other attribute that makes a speech persuasive to a general audience.*

To ensure that the adjudicators provided independent persuasiveness scores, we asked them to fill out these surveys during the debate. Adjudicators on the panel painstakingly take notes of each speech and generally do not interact with each other during the debate. We collected their surveys before any deliberation of the panel took place.

### **D.8.2 Adjudicator survey (online tournaments)**

This 5-minute survey is collected at the same time as the pre-debate survey among debaters. It includes:

- Incentivized belief elicitation on three factual statements: for each such statement subjects state how likely it is that the fact is true (numeric answer from 0 to 100). These are the three factual statements of the round.
- For each of these factual statements as well as for the confidence question, we ask adjudicators to also predict the average response of debaters on the proposition side and on the opposition side of the debate (numeric answer from 0 to 100).

- For each of the two motion related charities of the round, we elicit an hypothetical choice of one of 9 monetary allocations, along a concave budget, between the baseline charity and the charity aligned with one of the sides represented in the debate.
- For each of the two motion related charities of the round, we also ask adjudicators to predict the average choice of debaters on the proposition side and on the opposition side of the debate.

## **D.9 Enumerator survey**

The enumerator in the offline tournaments filled out a survey during the debate that includes the following items:

- A count of the times not speaking debaters try to interrupt the speaker (through Points of Information).
- A subjective rating of how heated each debaters' argumentation is coming across (on a scale from 1 to 5).<sup>12</sup>
- For each of the four facts related to the motion over which we elicit debaters beliefs, and for both the motion related charities, note whether these were mentioned during the debate.

We drop this survey at the online tournaments.

## **D.10 Ballot**

Adjudicators fill out the ballot: The official form that determines the outcomes of the debating tournament. This form includes:

- Name and position of each team in the debate
- Ranking of the four teams in the debate (from First to Fourth, with no possibility for ties)
- Individual speaker scores (on a scale from 50 to 100)

After a debate is over, speakers leave the room to let adjudicators on the panel privately discuss the performance of each debater. This discussion takes approximately 15 minutes during which the

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<sup>12</sup>Enumerators were instructed to write down this score for each debater at the end of the speech. They could however revise this score for debaters that acted particularly heatedly during other debaters' speeches.

arguments presented by each debater are technically analyzed. A technical analysis is particularly relevant to the assignment of individual speaker scores, which are supposed to be assigned on a objective scale that applies to any British Parliamentary debate irrespective of the tournament quality.<sup>13</sup> The ballot is filled out at the end of this discussion.

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<sup>13</sup>An example of such scale can be found at <https://debate.uvm.edu>.

Table D.1: Alignment of facts with motions

Factual statements, organized by motions <sup>14</sup>	Alignment
<b>This House believes that governments should stop funding scientific programs that have no immediate benefit for humankind (such as space travel and exploration, human cloning)</b>	
1. The European Space Agency’s annual budget exceeds 4% of the EU budget	Proposition
2. More than six Europeans out of ten agree that space technologies have a role to play in avoiding threats like asteroids, comets, and space debris collisions	Opposition
3. More than 10 of the following 15 innovations are a consequence of inventions made in the pursuit of space travel: camera phones, scratch resistant lenses, electric light, CAT scans, LEDs, land mine removal, athletic shoes, penicillin, water purification systems, the internet, home insulation, wireless headsets, baby formula, portable computers	Opposition
4. A study in a leading economics journal in 1998 finds that the majority of R&D spending by the US government goes into wages for scientists, which in turn does little to increase the number of scientists	Proposition
<b>This House believes that Western States should permanently revoke the citizenship of citizens who join terrorist organisations</b>	
1. From 2015 to 2017 there were more than 50 separate Islamic terrorist attacks in the EU	Proposition
2. According to the UN’s Basic Human Right’s Reference Guide on the right to a fair trial and due process in the context of countering terrorism, the citizenship of people suspected or proven of having been part of terrorist organisations may never be revoked	Opposition
3. In Germany, the law governing citizenship already permits to strip those with dual citizenship of their German citizenship if they join a foreign army	Proposition
4. The two main perpetrators of the 2015 attacks on the offices of the satirical newspaper Charlie Hebdo had fought with IS in Syria prior to the attack	Proposition
<b>This House regrets the EU’s introduction of freedom of movement</b>	
1. In a much-cited academic article from 2012, researchers from University College London found that immigration increased wages in the UK, both at the bottom and at the top of the income distribution	Opposition
2. More than 35% of UK citizens interviewed for the Eurobarometer in 2018 think that the Schengen Area has more disadvantages than advantages for the UK	Proposition
3. According to a 2018 paper by researchers from the University of Munich, emigration within Europe positively contributes to innovation in source countries, i.e. countries people emigrate from	Opposition
4. Less than half of Europeans agree that integration of immigrants has been a success in their local area, city or country	Proposition
<b>This House would suspend trade union powers and significantly relax labour protection laws in times of economic crisis</b>	
1. A 2015 survey by the Employment Policies Institute shows that a majority of economists thinks that a USD 15 minimum wage will reduce the number of jobs	Proposition
2. According to a study of 21 Eastern European economies published in 2017, members of labor unions are less likely to lose their job during an economic crisis	Opposition
3. The fraction of the U.S. population that approves of labor unions dropped by more than one third from the mid-50s to 2009, according to the Gallup poll	Proposition
4. In a 2005 study of OECD countries, economists from Harvard University and the University of Bonn find that greater labor market flexibility (e.g. due to weaker trade unions) is associated with greater employment	Proposition
<b>This House believes that causing deliberate harms to enemy civilians, by the weaker side, is a justified tactic in asymmetrical warfare</b>	
1. Research on the psychological effect of violence against Israeli civilians shows that such violence caused a hardening of attitudes, stronger opposition to political reconciliation with perpetrators, and an increase in support for counter-terrorist measures	Proposition
2. Nelson Mandela, who was awarded the Nobel Peace Prize for facilitating South Africa’s peaceful transition into democracy, was also the co-founder of the violent paramilitary wing of the African National Congress and was classified as a terrorist by the US until 2008	Proposition
3. Willingness to resort to violence was an integral part of the Birmingham campaign, which is widely credited with bringing about civil rights and desegregation in the United States of the 1960s	Proposition
4. Studies in political science consistently find that that rebel groups that use indiscriminate violence against civilians are more likely to achieve political goals	Proposition
<b>During periods of national housing shortages, this House would forcibly take ownership of privately owned homes which are not lived in by their owners)</b>	
1. According to the English Housing Survey, the number of second homes in the UK more than doubled between 1995 and 2013	Proposition
2. Under current UK regulation, squatters who live in and maintain unoccupied buildings enjoy protection under the law and can never be evicted without a court order	Opposition

<sup>14</sup>We redacted one motion from this table due to its sensitive content. Our analysis is based on all 19 motions.

3. According to an academic study published this year, over 5 percent of properties in England and Wales are low-use properties, defined as a property that is not registered as the primary residence of any individual Proposition

4. According to research by the newspaper the Independent in 2018, more than one third of new-build luxury apartments and houses in Central London lies empty Proposition

**This House believes that states should aggressively fund geoengineering projects instead of attempting to mitigate the effect of climate change**

1. Germany's experience with renewable energy promotion (i.e. its Renewable Energy Sources Act (EEG)) is often used as a model to be replicated elsewhere. Instead, a widely cited scientific study from 2010 argues that the German government's support of renewables has resulted in massive expenditures (annual feed-in tariffs of over 7 billion euros) that show little long-term promise for stimulating the economy, protecting the environment, or increasing energy security Proposition

2. According to recent data from the Climate Action Tracker, more than one third of the surveyed countries are well on track to meet the CO2 emission targets they imposed on themselves under the Paris agreement Opposition

3. Even the US, which has not supported recent global efforts to fight climate change by means of reducing CO2 emissions, has been enthusiastic in its support for geoengineering projects, as evidenced by its support for the U.N. resolution on geoengineering Proposition

4. A 2018 study by two prominent economists from MIT argues that increased investments in geoengineering may also increase efforts to improve clean energy technologies Proposition

**This House regrets the decision to let the FARC (i.e. The Revolutionary Armed Forces of Colombia - People's Army) run as a political party.**

1. Shortly after the 2016 peace deal with FARC, Colombia has been experiencing a resurgence of violence. The number of homicides is up by more than 7% in 2018 compared to the previous year Proposition

2. In 2016, the Nobel peace prize was jointly awarded to Colombian president Santos and the leader of FARC, Rodrigo Londoño, for their "resolute efforts to bring the country's more than 50-year-long civil war to an end" Opposition

3. In March 2017, the Colombian government reported that more than 25% of the estimated 6'900 FARC fighters refused to disarm Proposition

4. Towards the end of the peace deal negotiations between the Colombian government and FARC, NGOs like Amnesty International and Human Rights Watch as well as the Colombian Conservative party criticized the peace deal for being too lenient on perpetrators of human rights violations Proposition

**When tech companies own platform utilities and platform products, this House would break them up.**

1. According to a 2018 survey from the Pew Research Center, over 50% of Americans believe that major tech companies have too much power and influence in today's economy Proposition

2. The UK government's digital competition expert panel, chaired by Professor Furman who was chief economic advisor in Obama's presidency, issued a report just two weeks ago rejecting the widely held view that "digital platforms are natural monopolies where only a small number of firms can succeed" Opposition

3. According to a 2018 survey from the Pew Research Center, over 60% of Americans believe that major tech companies should be more regulated than they currently are Proposition

4. A 2018 survey of 1200 sellers on the Amazon platform, conducted by the independent market research firm Feedvisor, finds that over 40% of private sellers on Amazon fear that the company will take away their seller privileges and over 60% of them fear Amazon competing directly with them Proposition

**This House believes that it is in the interest of men for gender roles (e.g. work-life balance, choice of occupation, assertiveness expectations) to be dismantled**

1. A study by the London School of Economics finds that traditional gender identity deters men from entering female-dominated professions. Proposition

2. A study of over seventy thousand individuals across several countries finds that greater gender equality is associated with better mental health for men. Proposition

3. A paper in the journal Labor Economics documents that men in male-dominated professions are happier with their jobs than men in female dominated professions. Opposition

**This House believes that humanitarian organizations should primarily use apolitical aid as opposed to politicized action**

1. A survey in Iraq in 2006/7 showed that the perceived neutrality and impartiality of humanitarian aid was reduced by collaborations between humanitarian and military or political actors. Proposition

2. A 2012 Ipsos poll in the UK found that "political bias" was the most frequently cited reason among those who reported a decrease in trust in charities. (FALSE - 5th important reason). Proposition

3. Political activism by humanitarian organisations across the world was key in ending apartheid in South Africa, since both Margaret Thatcher and Ronald Reagan cited said activism in their decision to sanction the apartheid regime. Opposition

**This House would allow people to sign income share agreements**

1. According to a study by Purdue University published this year, there is a large negative effect of income share agreements on subsequent student grade. Opposition

2. According to a study by the Institute for College Access and Success, a move away from student debt to income share agreements would increase the share of low-income students in higher education, because low-income students tend to prefer income share agreements. Proposition

3. In 2019, U.S. senator Elisabeth Warren sent a letter to secretary of education Betsy DeVos, arguing that income share agreements include some of the most exploitative terms in the private student loan industry. Opposition

**This House believes that developing nations should prioritise investment in future technologies (e.g. 5G, cybersecurity, green energy) over traditional sectors (e.g. agriculture, manufacturing)**

1. Renewable energy will account for 80% of total global energy jobs by 2050 according to a 2020 study in the Journal of Technological Forecasting and Social Change. Proposition

2. Over 60 percent of developing nation populations live in rural areas, often far away from urban hubs and with little access to high-quality education. Opposition

3. According to a paper published in the journal Renewable and Sustainable Energy Reviews, the introduction of smart grid technology in China, India and Brazil has been an economic success story. Proposition

**This House supports engaging private military companies to combat terrorism**

1. According to an article in the Journal of Peace Research, private military companies have a destabilizing effect by creating their own demand for further conflict. Opposition

2. This year, the U.N. accused a private military company in Libya of using illegal chemical weapons. Opposition

3. According to a paper published in the journal of African Studies, private military companies were an integral part of the successful military campaign against the terrorist group Boko Haram in Nigeria. Proposition

**This House regrets modern medicine's prioritisation of longevity over quality of life (e.g. extending lifespan vs. palliative care).**

1. A 2017 review of clinical trials on the effect of palliative care on patients' self-reported quality of life concluded that there was no such effect. Opposition

2. A review of 38 academic studies concluded that more than 50% of patients near the end of life receive completely ineffective medical interventions aimed at extending their life. Proposition

3. In a 2015 article, researchers from the University of Cambridge argue that the focus of medical research on increasing longevity, rather than the quality of life, is damaging to patients' health and the economy. Proposition

**This House proposes a world where, after COVID-19 is no longer a threat to public health and safety, remote work remains the norm**

1. According to the U.S. Census Bureau, the average American worker spent over 15 full days commuting in 2018. Proposition

2. A 2017 report by the International Labor Organization found that remote workers report better work-life balance and higher productivity. Proposition

3. According to a November 2020 survey by consulting agency PriceWaterhouseCoopers, less than 50% of employers say that their shift to remote work has been a success. Opposition

**This House opposes political consumerism**

1. An academic assessment of the impact of 21 consumer boycott announcements found that they had no effect on the market value of the target firms. Proposition

2. According to Helen Lewis, a prominent feminist, political consumerism tends to bring about superficial reactions by companies rather than genuine reform. Proposition

3. Research in the Journal of Civil Society shows that engaging in political consumerism has the benefit of also leading to a higher level of engagement in conventional political activism. Opposition

**This House supports the rise of private cities in the developing world**

1. A 2017 article in the Journal of Urban Geography criticizes China for using private cities as a geopolitical tool for its expansionist agenda. Opposition

2. Lavasa, one of the first private cities in India, has been largely abandoned by residents as its corporate owners ran out of funds for maintenance. Opposition

3. A 2020 article, published in the Journal of Development Economics, documents how a UN-funded private city in Ghana significantly improved the health and educational outcomes of its inhabitants. Proposition

Table D.2: Alignment of charitable causes with motions

Charitable causes, organized by motions <sup>15</sup>	Alignment
<b>This House believes that governments should stop funding scientific programs that have no immediate benefit for humankind (such as space travel and exploration, human cloning)</b>	
1. <b>The International Space University</b> develops the future leaders of the world space community. It encourages the innovative development of space for peaceful purposes: to improve life on Earth and advance humanity into space	Opposition
2. <b>The Planetary Society</b> is the world’s largest and most influential non-profit space organization. The society advocates for space and planetary science funding in government, invests in inspiring educational programs, and funds groundbreaking space science and technology	Opposition
<b>This House believes that Western States should permanently revoke the citizenship of citizens who join terrorist organisations</b>	
1. <b>The Active Change Foundation</b> is based in the UK and provides a holistic approach to neutralising extremism and violence on both an individual and community level. Its chief executive is an outspoken critic of those actors within the UK that favor stripping individuals of their citizenship for being involved with terrorist organisations	Opposition
2. <b>Human Rights Watch</b> defends the rights of people worldwide. It scrupulously investigates abuses, exposes the facts widely, and pressures those with power to respect rights and secure justice. It has been a vocal defender of the right to citizenship for all people	Opposition
<b>This House regrets the EU’s introduction of freedom of movement</b>	
1. <b>The European Movement UK</b> is a grass-roots, independent, pro-European organisation. One of its main goals is to safeguard the freedom of movement made possible by membership of the EU, both for UK citizens who want to travel and work abroad and for citizens of other EU countries who want to come to the UK to work and to live	Opposition
2. <b>ACT4FreeMovement</b> stands for Advocacy, Complaints, Trainings for Freedom of Movement. The organization campaigns for freedom of movement with EU citizens. The goal is to increase the capacity of EU citizens to effectively secure access to and knowledge of their rights, as well as build public awareness and political support for mobile citizen rights	Opposition
<b>This House would suspend trade union powers and significantly relax labour protection laws in times of economic crisis</b>	
1. <b>The European Trade Union Confederation</b> speaks with a single voice on behalf of European workers to have a stronger say in EU decision-making. It aims to ensure that the EU is not just an economic union but also a Social Europe, where improving the well-being of workers and their families is an equally important priority	Opposition
2. <b>The Living Wage Foundation</b> is a campaigning organization in the United Kingdom, which aims to persuade employers to pay a Living Wage, an independently calculated and recommended minimum wage to cover workers’ basic needs	Opposition
<b>This House believes that causing deliberate harms to enemy civilians, by the weaker side, is a justified tactic in asymmetrical warfare</b>	
1. <b>The Israel Trauma Center</b> for Victims of Terror and War is an apolitical organization providing multidisciplinary treatment and support to direct and indirect victims of trauma due to terror and war in Israel	Proposition
2. <b>Muslim Aid</b> is an Islamic Charity, which has been actively working in Gaza since 2006. It helps vulnerable people to obtain essentials like food and medical supplies, which are scarce as importing and exporting has been made difficult	Proposition
<b>During periods of national housing shortages, this House would forcibly take ownership of privately owned homes which are not lived in by their owners)</b>	
1. <b>Action on Empty Homes</b> is a UK NGO campaigning for more empty homes to be brought into use for people in housing need. It raises awareness of the waste of long-term empty homes and campaigns for changes to national policy to bring more homes into use.	Proposition
2. <b>The Land Is Ours</b> campaigns peacefully for access to the land, its resources, and the decision-making processes affecting them. Among other things, it advocates ‘Use It Or Lose It’ programme where empty buildings are forfeit or put on a tax escalator, where the owner can lose title after one year	Proposition
<b>This House believes that states should aggressively fund geoengineering projects instead of attempting to mitigate the effect of climate change</b>	
1. <b>Geoengineering Monitor</b> aims to be a timely source for information and critical perspectives on climate engineering. The goal is to serve as a resource for people around the world who are opposing climate geoengineering and fighting to address the root causes of climate change instead	Opposition
2. <b>The Environmental Defense Fund</b> addresses today’s most urgent environmental challenges by focusing on the solutions that will have the biggest impact, such as removing obsolete rules that hamper the clean energy market in the U.S. It favors a strategy of reducing CO2 emissions over geoengineering	Opposition
<b>This House regrets the decision to let the FARC (i.e The Revolutionary Armed Forces of Colombia - People’s Army) run as a political party.</b>	

<sup>15</sup>We redacted one motion from this table due to its sensitive content. Our analysis is based on all 19 motions.

1. **Justice for Colombia** is a British NGO whose primary goal is to give a political voice internationally to Colombian civil society. It has been campaigning to help Jesús Santrich, a lead FARC negotiator of the peace deal who was going to take a seat into parliament in 2018, get justice. The US incarcerated him without providing any evidence of Santrich's crime to the Colombian government. Opposition
2. **Strangers to Peace** is a documentary project of film maker Noah DeBonis which follows the life of ex-FARC guerrillas during their reintegration process. If funded, the film aims to enrich viewer's understanding of a marginalized community through tales of personal and social redemption. Opposition
- When tech companies own platform utilities and platform products, this House would break them up.**
1. **Elizabeth Warren** is a candidate for the President of the United States in 2020. Among other causes, she runs on a platform breaking up big tech firms such as Google and Amazon in a platform component and a supplier component. Donations go towards her campaign for the presidency. Proposition
2. **The Open Markets Institute** uses journalism to promote greater awareness of the political and economic dangers of monopolization, identifies the changes in policy and law that cleared the way for such consolidation, and fosters discussions with policymakers and citizens as to how to update America's traditional political economic principles for our 21st century digital society. Proposition
- This House believes that it is in the interest of men for gender roles (e.g. work-life balance, choice of occupation, assertiveness expectations) to be dismantled**
1. **The Smash Stereotypes campaign** by the Fawcett Society brings together experts across sectors to establish how society can end gender stereotyping, and to induce government action on the topic. Proposition
2. **Jordan Peterson** is an influential psychologist who maintains that excessive feminisation of society is a major cause of anxiety in men. He accepts donations for online education and other projects. Opposition
- This House believes that humanitarian organizations should primarily use apolitical aid as opposed to politicized action**
1. The **Boycott, Divestment, Sanctions** movement works to support Palestinians' struggle for justice and pressure Israel to comply with international law. Opposition
2. **The Campaign Against Arms Trade** is a UK based humanitarian organization that takes political action to end all UK government support for arms exports, especially to Saudi Arabia, Nigeria, the US, and other countries where UK arms have been used against civilians. Opposition
- This House Would allow people to sign income share agreements**
1. **The Student Freedom Initiative** is a large-scale effort to ease the disproportionate loan burden on Black students in the U.S. by offering income share agreements as a cheaper, less risky alternative to student loans. Proposition
2. **The Student Borrower Protection Center** advocates against the use of income share agreements, which they view as a predatory lending tool that may sidestep some of the stricter regulation on student debt. Opposition
- This House believes that developing nations should prioritise investment in future technologies (e.g. 5G, cybersecurity, green energy) over traditional sectors (e.g. agriculture, manufacturing)**
1. **Farm Africa** is a charity that aims to reduce poverty by supporting rural agriculture in Africa. Opposition
2. **Digital Divide Data** brings tech skills to men and women in under-served communities in Asia, offering a wide range of digital content and technology services. Proposition
- This House supports engaging private military companies to combat terrorism**
1. **International Corporate Accountability Roundtable** works to protect human rights in the face of corporate abuse, including by PMCs. Opposition
2. **War on Want** actively advocates against the widespread engagement of private military companies and other commercialisations of war. Opposition
- This House regrets modern medicine's prioritisation of longevity over quality of life (e.g. extending lifespan vs. palliative care).**
1. The **Palliative Care Network** aims to improve the quality of life of patients who are facing end-of-life issues, by promoting palliative care education and collaboration globally. Proposition
2. The **Lifespan Research Institute** aims to extend lifespan by discovering anti-aging compounds that demonstrably extend human life and prevent the onset of age-related disease. Opposition
- This House proposes a world where, after COVID-19 is no longer a threat to public health and safety, remote work remains the norm.**
1. **Badass Digital Nomads** prepares people for success in the remote economy by highlighting cutting edge trends in technology and remote entrepreneurship. Proposition
2. The **Remote Work Association** collects and distributes resources for new-to-remote employers and workers around the world to facilitate telework connections. Proposition
- This House opposes political consumerism.**
1. **Progressive Shopper** makes available information on companies' donations to US political parties so that shoppers can consume in accordance with their political preferences. Opposition
2. The **Grab your Wallet Alliance** publishes a list of companies that have a connection to Donald Trump, in order to allow consumers to flex their economic power. Opposition

**This House supports the rise of private cities in the developing world.**

1. The **Startup Societies Foundation** promotes and connects startup societies (such as private cities, eco villages, and smart cities) in order to create a vibrant, Proposition  
global industry in this field.

2. The **Charter Cities Institute** is a non-profit organization that supports the creation of novel governance systems by coordinating various stakeholders in Proposition  
new charter or private cities.

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## References

**De Quidt, Jonathan, Johannes Haushofer, and Christopher Roth**, “Measuring and bounding experimenter demand,” *American Economic Review*, 2018, *108* (11), 3266–3302.

**Harrison, Glenn W, Jimmy Martínez-Correa, and J Todd Swarthout**, “Eliciting subjective probabilities with binary lotteries,” *Journal of Economic Behavior & Organization*, 2014, *101*, 128–140.

**Imai, Kosuke, Luke Keele, and Dustin Tingley**, “A general approach to causal mediation analysis,” *Psychological methods*, 2010, *15* (4), 309.

—, —, and **Tepei Yamamoto**, “Identification, inference and sensitivity analysis for causal mediation effects,” *Statistical science*, 2010, pp. 51–71.