Quantitative Testing of Alternative Models

Median Policy

The median policy for the experimental triads is always given by w_2, the pre-discussion wager of the intermediate member. It is plotted as a function of disagreement level for the complete and chain networks in Figure S3. The zero-parameter χ^2 goodness-of-fit test for the median yields $Q = 10^{-10}$ for $\chi^2 = 72.6$.

Policy-Based Proximate Majority

The proximate majority model based on the policies is the same as the RPM model with the rhetorical issue identical to the policy. In other words, Equation 2 in the main text with $\rho_i = x_i$ where x_i is taken to be the wager w_i. The results are plotted in Figure S3. The zero-parameter χ^2 goodness-of-fit test for the policy-based proximate majority model yields $Q = 7 \times 10^{-4}$ for $\chi^2 = 33.9$.

Intuitive Confidence-Weighted Aggregation of Policies

This model aggregates policies with weights determined by the intuitive confidence of Simmons and Nelson (2006), which is set by the probability of game victory for whichever team one believes more likely to win. Network structure is not taken into account. The consensus wager w_f for the intuitive confidence aggregation model is given by

$$w_f = \frac{c_1 w_1 + c_2 w_2 + c_3 w_3}{c_1 + c_2 + c_3}, \tag{S8}$$

The intuitive confidence weight c_i is the difference between the probability of game victory and 1/2 (which indicates zero confidence): $c_i = \rho(w_i) - 0.5$ for $\rho(w_i) \geq 0.5$ and $c_i(w_i) = 1 - \rho(w_i) - 0.5$ for $\rho(w_i) < 0.5$ where $\rho(w)$ is the subjective probability of favorite game victory as given by Equation 6. We set $\sigma = 12.8$ for $\rho(w)$ as for