

communication rate expectations are approximately borne out in our experiment (see Supplementary Material).

We can now address the effect of network structure on group polarization. The consensus policy in the complete network is given by the straight average of the policies of the rhetorically-proximate pair as described above. In the chain, however, the rhetorically-proximate majority position is skewed toward the center node given that it has twice the weight of the extreme node with which RIA facilitates pairing. The consensus policy for the chain is therefore less extreme than for the complete network ($x_f = (2/3)x_2 + (1/3)x_3$ vs. $x_f = (1/2)x_2 + (1/2)x_3$). Consequently, we predict that *complete networks will exhibit greater group polarization than chains*. Simulation results displaying this effect as well as those for issue substitution and disagreement are shown below (see Figure 5).

A straightforward way of extending the RPM model to larger networks is to define the rhetorically-proximate majority as the set of nodes comprising the majority that spans the minimum range over the rhetorical issue. The final policy is then given by the weighted average policy within this set; each node’s policy is weighted by the sum of its outgoing communication weights to the other nodes in the set divided by the sum of all the communication weights among set members.

Method

Triads of NFL fans engaged in online discussions concerning how much to wager on the outcome of a weekly NFL game (Figure 3).⁵ The wager was with respect to the point spread. Figure 3 shows the Seahawks as the favorite by 8 points over the Cardinals. A bet on the Seahawks is successful if they win by more than 8 points; otherwise, a bet on the Cardinals is successful. To provide real stakes to the task,