

## Kearns Experiment

- 3 pools of 36 people each
- Each subject controls the state of a single vertex in 36 vertex network
- Financial incentive - varies across the population
  - Ex. One player receives \$2 for blue consensus, \$1 for red consensus, while the other will be paid \$1 for blue consensus and \$2 for red consensus
    - No explanation of how these payoffs are structured, only constraints are on the number of possible edge purchases
  - Payments only made if global unanimity of color was reached
- At experiment start, network has 0 edges and player can see the state of only their own node
- Players can see two pieces of information of other players
  - Degree of neighbors of whom they are not directly connected
  - Shortest path to other neighbors
- Players can buy an edge for the neighbor, which allows them and their neighbor to see each others degrees
- Edge purchases are persistent and irrevocable
- Players can spend an amount on edges that was strictly less than their lower payoff color
- If unanimity is reached, experiment is terminated, and a player's edge purchases were subtracted from their earnings
- Asynchronous time – players can buy edges whenever, not at discrete steps
  - Is this critical?

## Results/ Metrics:

- Successful/ Not successful
  - Average over multiple trials to determine success rate
- Meta: Use p-values to determine statistical significance of results