

# Individual and Group Influence in Policy Networks: Further Quasi-Experiments

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## Background

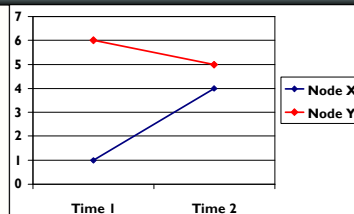
- The nature of the influence process within policy networks often still a "black box"
  - concern for importance of person to person contact
  - concern for distinctive nature of elites, and of policy networks
    - unique context, relatively homogenous
- quasi-experimental research design in classroom
  - attempt to account for social structure measurements and influence (w/ personality and other attribute controls)
  - complete network data (96% response rate)

## (Quasi) Experiment

- 150 Students in an introductory political science course
  - Mostly freshmen – blank slate; little social interaction prior to class
  - two surveys – 5 weeks apart
  - opinion on electricity restructuring (7 point Likert scale); opinion intensity (eg certainty)
  - Extensive interaction processes (4 half lectures, 3 section meetings, out of class discussions)
- Demographic data (homophily)
  - Race, gender, class grade, SAT scores, year in school, political affiliation
  - Big Five (Social Psychology) personality test
    - Extroversion, Agreeableness, Stability, Openness, Conscientiousness (Srivastava, S. 2006).
- Network Data
  - Interaction concerning policy issue (contact)
  - perceived influence attempts (to, from)
  - social interaction, trust, leadership, expertise, charisma, energy
- Dependent Variable
  - measured (not perceived) influence

## Operationalizing Influence

- Percentage weighting: if difference between two nodes is 2, and alter moves 2, that is 100% of total difference. If difference is 5 points and alter moves 2, it's 40%.



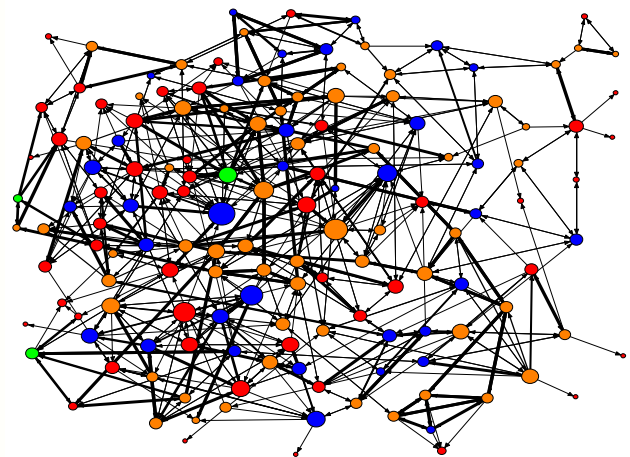
## Person to Person Influence

- All analysis is MRQP
- # of students: 145
- # of dyads: 693 (214 w/ influence; ~31%)
  - # of observations is consistent for all models: 21,756
- coefficient (beta weight)
  - \* significant at 90%
  - \*\* significant at 95%
  - \*\*\* significant at 99%

Best Model	
R square	0.308 (0.307)
Probability	0.000
Dependent Variable	
Influence as Percent	x
Independent Variables	
Intercept	0.000
Leadership	0.005 (0.05) **
Trust	<b>0.031 (0.29) ***</b>
Elec. Pol. Expertise	0.007 (0.05) ***
Total time spent	<b>0.002 (0.20) ***</b>
"Smart"	<b>0.012 (0.15) ***</b>
Live with	-0.009 (-0.04) ***
Social after	-0.018 (-0.11) ***

## Centrality, Influence, and Opinion Change

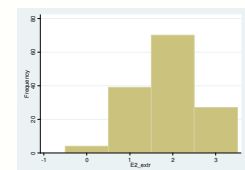
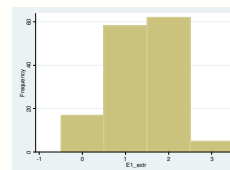
- Geary analysis (auto correlation) of degree centrality and influence (as a percent). (Ucinet)
  - Autocorrelation 0.470 (std. err. 0.142) \*\*\*
- Degree centrality and opinion change (Ucinet)
  - R square 0.02
  - Degree 0.07 (beta = 0.15) \*
- degree centrality associated with increased influence on others, but no association with ego's likelihood to change opinion.**



- size = degree centrality (1-15)
- tie width = influence (as percent) directional
- color = absolute opinion change
  - red\_\_\_\_\_no opinion change
  - orange\_\_\_\_\_1 movement opinion change
  - blue\_\_\_\_\_2, 3, or 4 opinion change
  - green\_\_\_\_\_5 or 6 opinion change

## Opinion Extremism

- opinion extremism increases
  - i.e. "middle" opinions move to 1s or 7s



## Predictive Group (egonet) opinion models

### Group Effects?

- Do group (egonet) influence/opinion models predict final opinion? Not really...
- Groups increased in extremism, but no consensus emerged; standard deviation of opinion increased from t1 to t2 (1.30 > 1.63)
- egonet prediction models regressed on t2 opinion of ego have minimal impact! (Stata OLS)

	Model 1	Model 2	Model 3
alters avg t1 and t2	0.229 (0.192)		
alters avg @ t2		0.308 (0.144) **	
alters average weighted (influence & opinion intensity)			0.502 (0.183) ***
R square	0.01	0.03	0.05