



# Homophily and Influence

## Political Opinion Formation Processes in Dynamic Social Networks

### Research Question and Theoretical Background

There are different mechanisms of political opinion formation in social networks. Separating the different effects is difficult since they influence each other.

- Homophily (Lazarsfeld/Merton 1954)
- Influence (Katz/Lazarsfeld 1966)
- Contextual effects (Huckfeldt/Sprague 1987)
- Individual characteristics (Atkinson/Fowler 1961)
- Network characteristics (Steglich et al. 2009)

### Data and Method

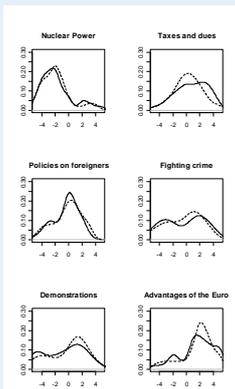
#### Data

- Pupils (aged between 16 and 19) participating in a summer school (Deutsche SchülerAkademie)
- Survey on political attitudes and the social network during the summer school. 1st wave: 7th August; 2nd wave: 17th August

#### Method

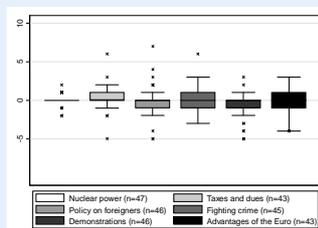
- Dynamic network analysis using RSiena

### Descriptive Results



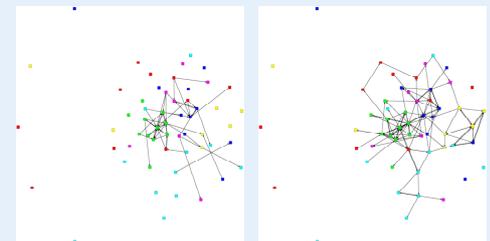
Densities of the attitudinal variables. The solid line represents wave 1, the dashed line wave 2.

First descriptive results of the various variables measuring political attitudes show that there are now attitudinal dynamics.



Individual attitudinal changes. Boxplots show the individual differences between the waves.

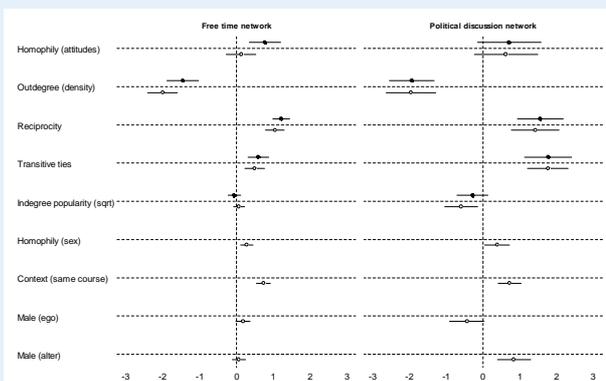
However, a look at the networks reveals changes of the network formation. Due to the lack of attitudinal dynamics, the analysis with RSiena solely focuses on attitudinal homophily.



Political discussion network (With whom do you discuss political matters?). Colours display the different courses the pupils attended during the summer school thus representing the context. Figure 1 shows the network of wave 1, figure 2 the network of wave 2.

### Analysis with RSiena

### Next steps



In the first column the dependent variable is the political discussion network. Two models are given (black dots and lines represent model 1, white dots and lines model 2). The lines show the 95% confidence interval. In the second column the dependent variable is the free time network (With whom do you spend your free time during the summer school?).

- Simultaneous estimations of homophily and influence with other data sets
- Interactions between contexts and individual variables

### Literature

Atkinson, Matthew and Anthony Fowler (2011): The Effect of Social Capital on Voter Turnout: Evidence from Saint's Day Fiestas in Mexico. Midwest Political Science Association Conference. Chicago, 2011.

Huckfeldt, Robert and John Sprague (1987): Networks in Context: The Social Flow of Political Information. American Political Science Review 81(4): 1197-216.

Katz, Elihu and Paul Lazarsfeld (1966): Personal Influence. The Part Played by People in the Flow of Mass Communications. New York: The Free Press.

Lazarsfeld, Paul and Robert Merton (1954): Friendship as Social Process. Freedom and Control in Modern Society, edited by Monroe Berger, Theodore Abel and Charles Page. New York: Octagon: 18-66.

Steglich, Christian, Tom Snijders, and Michael Pearson (2009): Dynamic Networks and Behavior: Separating Selection from Influence. Interuniversity Center for Social Science Theory and Methodology.