Detecting influential beliefs in large-scale surveys

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1. Research problem
2. Belief networks
3. Integrated Value of Influence
4. Discussion

Research problem

Belief systems in large-scale surveys

- **Large-scale** surveys?

Belief systems in large-scale surveys

- **Large-scale** surveys?
- *ESS*, *GSS*, *ALLBUS*, *BSAS*

Belief systems in large-scale surveys

- **Large-scale** surveys?
- *ESS*, *GSS*, *ALLBUS*, *BSAS*
- **Belief system** construction

Belief systems in large-scale surveys

- **Large-scale** surveys?
- *ESS*, *GSS*, *ALLBUS*, *BSAS*
- **Belief system** construction
- **Influential beliefs?**

Motivating example - ESS - Attitude towards government

Govermental Performance

Satisfaction with **Economy**
Satisfaction with **Democracy**
State of **Healthcare**
State of **Education**

Political Trust

Parliament
Legal system
Police
Politicians
Political parties

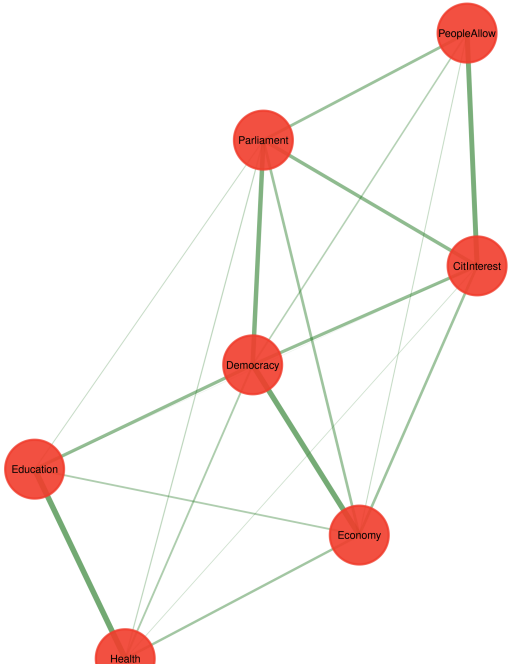
Representation & Fairness

Systems allows people to have **a say**
Systems allows people to have **influence**
Gov. decisions are **transparent**
Gov. takes into account **interests of all**
System gives a **fair chance** to all

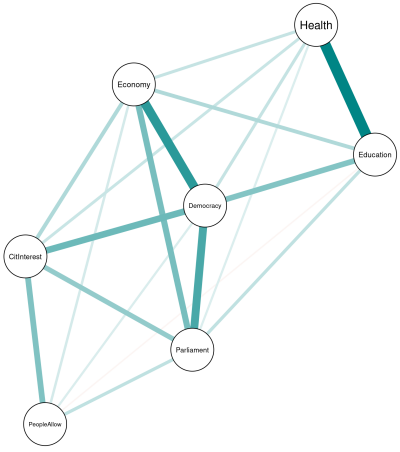
Analytical strategy

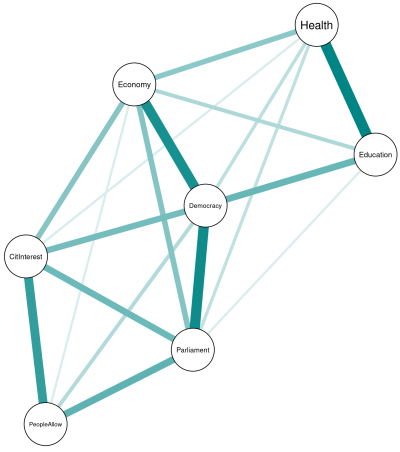
- CAN - UVA - IVI
- GGM with redundancy analysis (UVA)
- Network tree - partition of covariance matrix of GGM
- Centrality - Influence - IVI
- IVI differences between groups

Belief networks


PeopleAllow
Parliament
CitInterest
Democracy
Education
Economy
Health

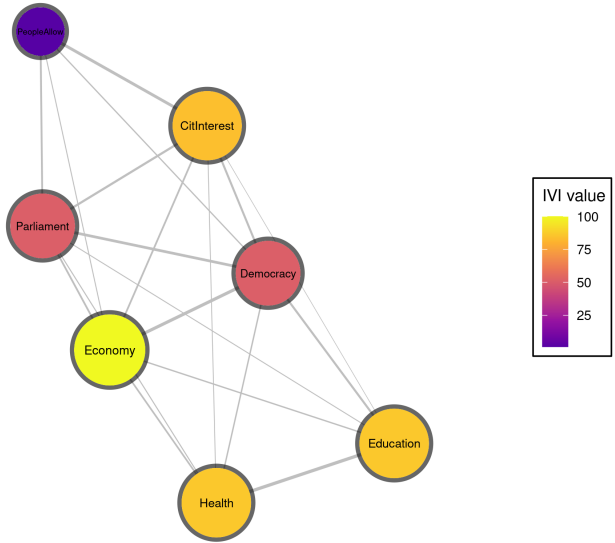
Electoral autocracies VS Liberal Democracies

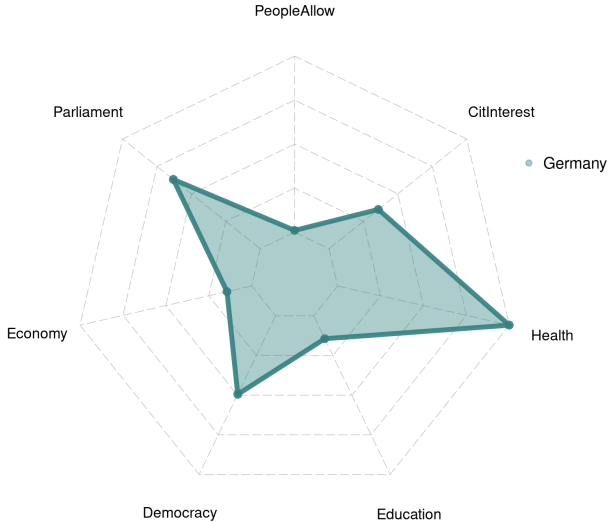


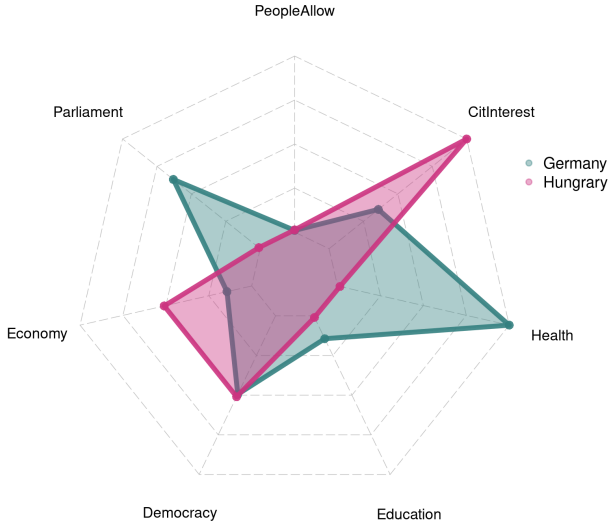


Integrated Value of Influence

Belief Network IVI - Complete ESS R9 dataset




PeopleAllow
CitInterest
Germany
Health
Education
Democracy
Economy
Parliament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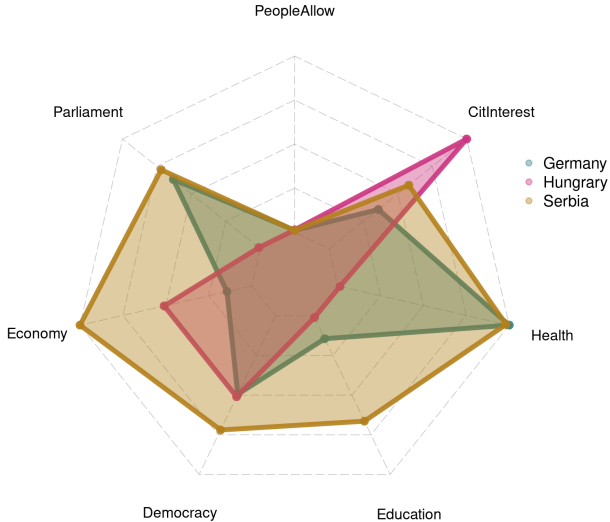
Hungrary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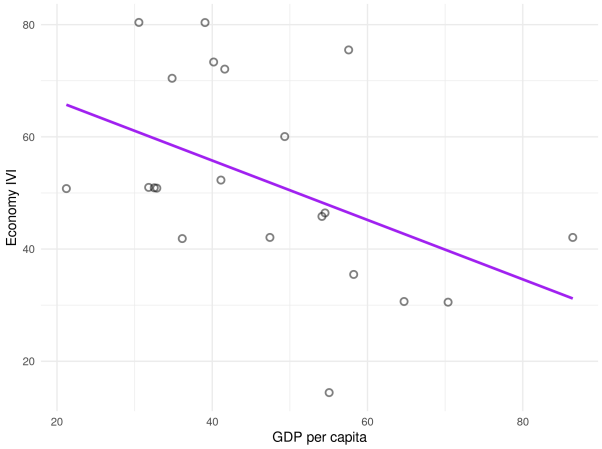
Germany
Hungrary
Serbia

GDP per capita vs Economy IVI



$r = -0.429 \quad p = 0.02$

Discussion