

Analysing impacts of inequality

Herman van de Werfhorst



UNIVERSITY OF AMSTERDAM



Amsterdam Centre
for Inequality Studies



GINI GROWING INEQUALITIES' IMPACTS



Description and explanation

- How has inequality changed across time in a range of countries?
- What are the correlates of inequality in terms of social, cultural and political outcomes?
- Are different income groups equally affected by inequality?
- Is inequality the explanation?
- But why? → theory development

- Cross-sectional, cross-time, and cross-sectional-cross-time analysis.

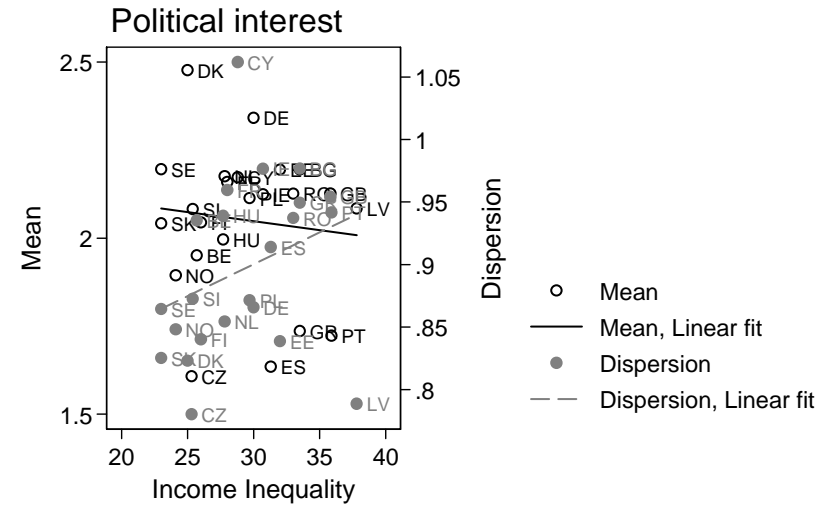
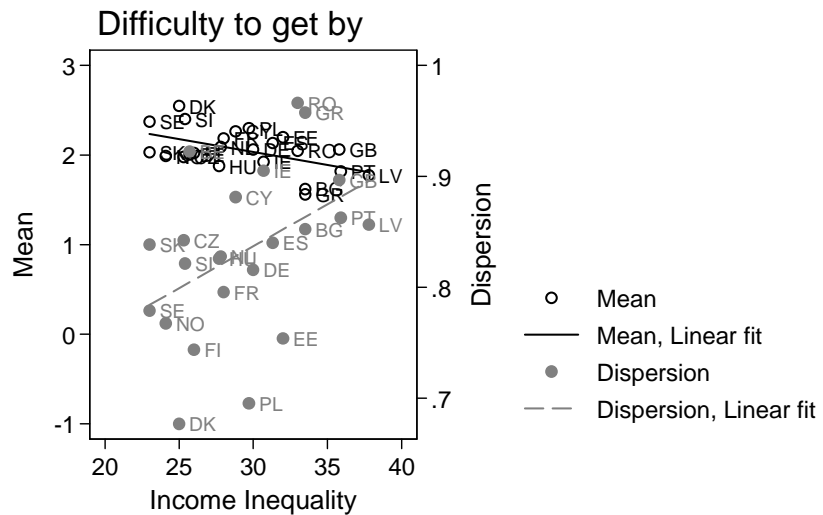
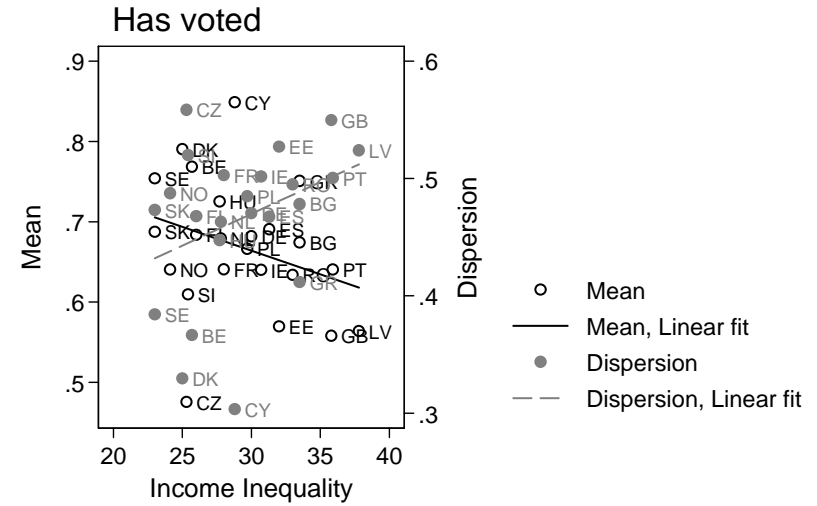
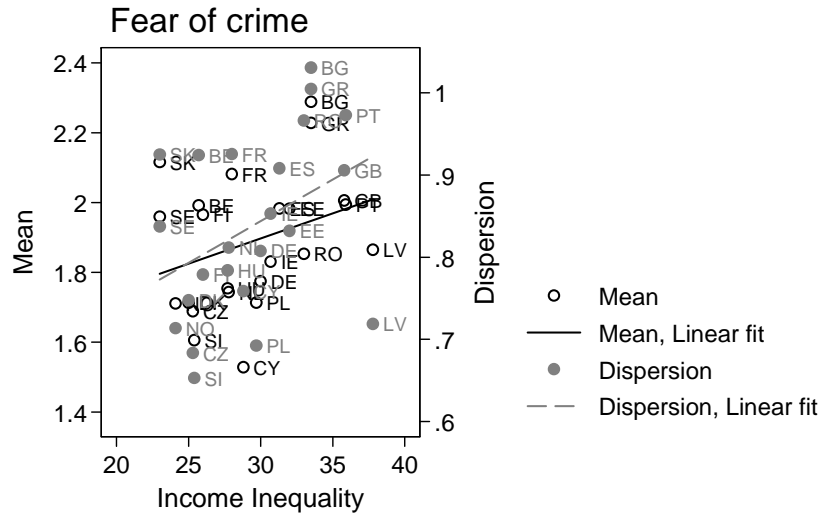
Causality as a property of theories

- Three types of causation (after Goldthorpe 2001):
 - (1) causation as **robust dependence**
 - (2) causation as **consequential manipulation**
 - (3) causation as a **generative process**.
- 1. Establish empirical regularities: is inequality related to outcomes? For whom?
- 2. Build action-theoretical model at the level of individuals in their context (family, country, ...), that lead to **specific hypotheses** (i.e. not just: “inequality affects outcomes”, as we need individual action here)
- 3. Test those hypotheses
- Causality is fundamentally a property of theories, not of methodologies.

The squeeze between policy makers and the philosophy of science

- Policy makers want to know: “does it work?” yes or no. (i.e. does inequality have an effect?).
 - A desire for certainty
- But scientific findings will never provide certainty (Popper!).
- Which is why the theoretical attribution of causality is so essential.
- Researchers using “evidence-based methods” should be more frank about this.

Descriptions: Means and dispersions



Associations controlled for GDP

Associations controlled for GDP

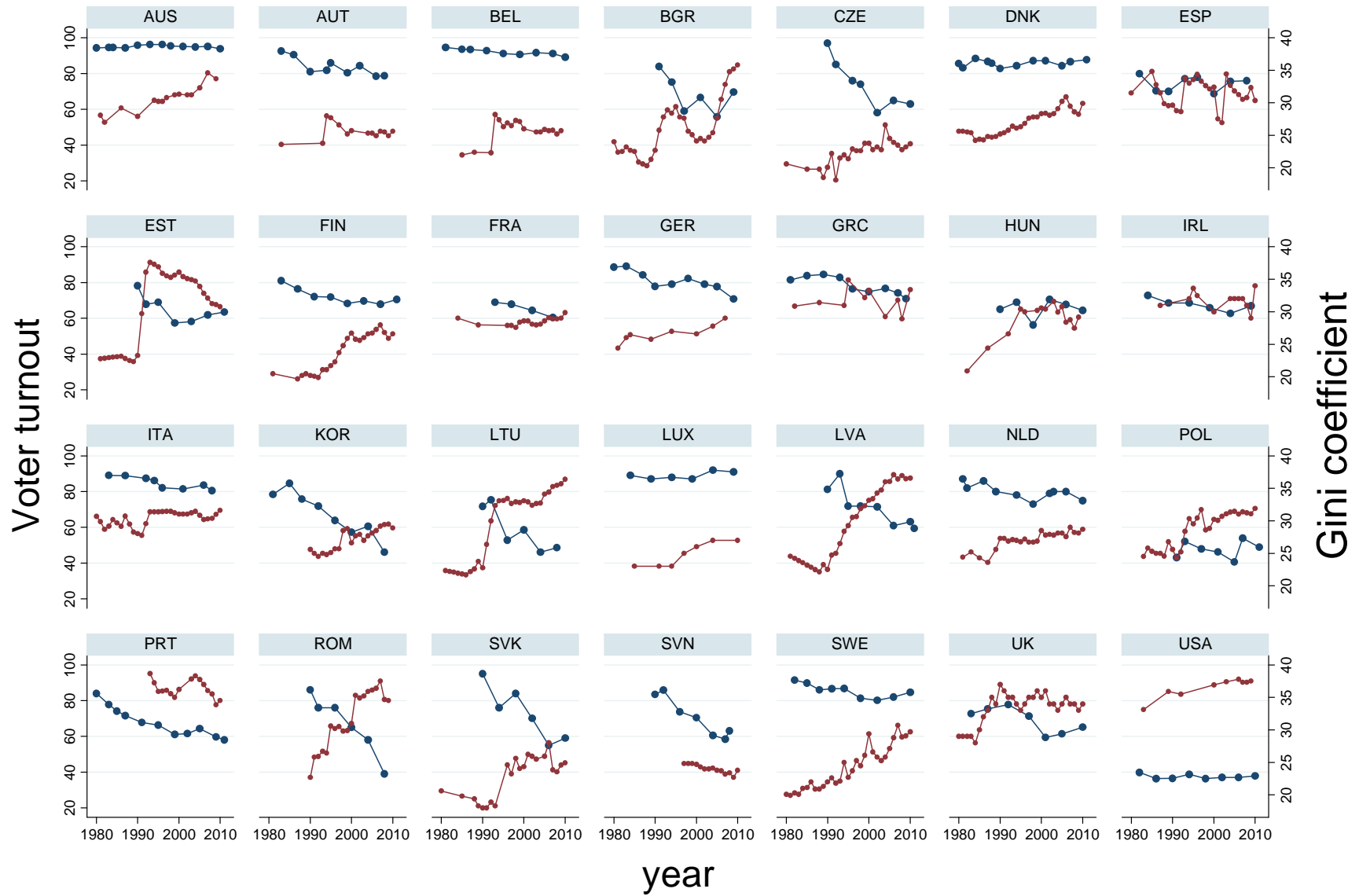
Many different sorts of analysis on the correlates of inequality

- Time series (e.g. GINI project database from country reports)
- Cross-sectional multilevel studies on comparative data (ISSP, ESS, WVS/EVS, EES)
- Repeated cross-sectional comparative data
- Data on political parties
- Single-country studies: panel data.

The GINI project database (Tóth)

- Country reports/chapters:
 - Time series on inequality
 - Time series on outcomes

$$y_{ct} = \alpha + \beta_1 \cdot GINI_{ct} + \beta_2 \cdot GDP_{ct} + \gamma' C_c + \delta' T_t + \varepsilon_{ct}$$



Multi-level studies: four estimation strategies

$$y_{ic} = \alpha + \beta \cdot INC_{ic} + \gamma \cdot GINI_c + \lambda \cdot GDP_c + \delta \cdot X_c + \zeta_c + \varepsilon_{ic}$$

1. Cross-sectional multilevel model

$$y_{ict} = \alpha + \beta \cdot INC_{ict} + \gamma \cdot GINI_{ct} + \lambda \cdot GDP_{ct} + \delta \cdot X_{ict} + \zeta_c + \xi_t + \varepsilon_{ict}$$

2. Cross-classified multilevel model

$$y_{ict} = \alpha + \beta \cdot INC_{ict} + \delta \cdot GINI_{ct} \cdot INC_{ict} + \gamma CYD_{ct} + \varepsilon_{ict}$$

3. Cross-level interaction without main effects for contextual variables (with country-year fixed effects)

$$y_{ict} = \alpha + \beta \cdot INC_{ict} + \gamma \cdot GINI_{ct} + \lambda \cdot GDP_{ct} + \delta \cdot GINI_{ct} \cdot INC_{ict} + \varphi \cdot CD_c + \tau \cdot YD_t + \zeta_{ct} + \varepsilon_{ict}$$

4. Country fixed effects and year fixed effects: Country specific time trend in Gini. GDP and/or income. Very strong test.

Given the need for causal narrative: mechanisms

- “The direct effect of inequality [...] arises when inequality of resources leads people in lower economic brackets to refrain from participating, either **because they have fewer resources** or **because they believe that getting involved will be fruitless because the system is stacked against them.**” (Uslaner and Brown)
- → Psychosocial theory and Neo-material theory
- Complementary rather than competing explanations