Welfare Regimes and Social Inequalities in Health Dynamics: A Comparative Analysis of Panel Data from Britain, Denmark, Germany and the US

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Health over the Life Course
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Social Production of Disease and the Life Course

- More unequal societies have poorer population health (Wilkinson 1996)

- Societies with weak social safety nets have worse population health than those with strong supports (Bartley et al. 1997)

- Advantages and disadvantages tend to cluster cross-sectionally and accumulate longitudinally (Blane 1999)
Welfare State Typologies

- Esping-Anderson (1990)
  - “Three worlds of welfare”
  - Decommodification, social stratification, private-public mix
  - Liberal, conservative, social-democratic

- Castles & Mitchell (1993)
  - Welfare expenditure, benefit equality and taxes
  - Liberal, Conservative, Radical, Non-right hegemony
### Castles’ and Mitchell Welfare State Typology

<table>
<thead>
<tr>
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<th>Liberal</th>
<th>Conservative</th>
<th>Radical</th>
<th>Non-right Hegemony</th>
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<tbody>
<tr>
<td>Welfare expenditure as % of GDP</td>
<td>Low</td>
<td>High</td>
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<td>High</td>
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<td>Average benefit equality</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>High</td>
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<tr>
<td>Taxes as % of GDP</td>
<td>Low</td>
<td>Low</td>
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<td>High</td>
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<td>Exemplar countries</td>
<td>Japan</td>
<td>Austria</td>
<td>Australia</td>
<td>Belgium</td>
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<td>Switzerland</td>
<td>France</td>
<td>Finland</td>
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<td>US</td>
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<td>New Zealand</td>
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<td>Italy</td>
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<td>Sweden</td>
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</tbody>
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Study Aims

- Compare cross-nationally
  - Aging and cohort effects on trajectories of self-rated health
  - Additive effects of social determinants on cross-sectional and longitudinal health
  - Effect of clusters of social exposures on trajectories of health
Data

- Four panel surveys
  - US Panel Study of Income Dynamics (N=5202)
  - British Household Panel Survey (N=4477)
  - German Socio-Economic Panel Survey (N=4991)
  - Danish panel from the European Community Household Panel Survey (N=3553)
- Working age respondents throughout the follow-up period
- Social exposures measured in 1994
  - Occupation, education, income, employment status, race, gender, age, marital status
- Health reported 1995-2001
Measuring Health

- **PSID**
  “Would you say your health in general is: excellent, very good, good, fair, poor?”

- **BHPS**
  “Please think back over the last 12 months about how your health has been. Compared to people of your own age, would you say that your health has on the whole been: excellent, good, fair, poor, very poor?”

- **GSOEP**
  “How would you describe your current health: very good, good, satisfactory, poor, bad?”

- **DECHP**
  “How is your health in general: very good, good, fair, bad, very bad?”
Analysis

- Latent growth curves
  - Linear growth curves by elapsed time controlling for age/age squared at baseline
  - Intercept and slope regressed on social exposures
- Graph health over time
  - Synthetic cohort trajectories
  - Aging vectors
- Estimate health trajectories
  - Compound effect of social exposures
Aging Vector Graphs

United States

Britain

Germany

Denmark

1995 to 2001
Age by minority status on baseline health

- a) United States
- b) Britain
- c) Germany
- d) Denmark

Diagram showing the predicted SRH Z-score by age and minority status for the United States, Britain, Germany, and Denmark.
Age by employment status on baseline health

- a) United States
- b) Britain
- c) Germany
- d) Denmark

Predicted SRH Z-score by age for different employment status:
- Employed
- Unemployed
- OLF

Graphs show the trend of predicted SRH Z-score across different ages for each country and employment status.
Aggregate Effects

- **Average ideal type**
  - Mean values for all social exposures

- **Advantaged ideal type**
  - Male, majority ethnic group, cohabiting, tertiary educated, employed, non-routine occupational class, above median income

- **Disadvantaged ideal type**
  - Female, minority ethnic group, no longer living with partner, lower secondary education, unemployed, routine occupational class, below median income
Growth Curves by Levels of Advantage

- a) United States
- b) Britain
- c) Germany
- d) Denmark

Legend:
- Pink: Advantaged
- Blue: Average
- Yellow: Disadvantaged
Conclusions

- Cross national differences suggest
  - Health of minority groups may be more affected by aggregate welfare expenditure
  - Work and health may be more affected by benefit equality
- “Strength of social gradients in health dynamics did not fully conform to expectations
  - US > Britain > Denmark > Germany
- Welfare regime not a static entity