Regional Provenance as a Cause for unequal Capabilities in Germany?

The Distribution of Capabilities between Males and Females in East and West Germany

Kerstin Becker

Christian Könnecke

Svenja Tietze

GeNECA-Workshop, Hamburg
May 14, 2013

INTRODUCTION AND RESEARCH INTEREST

INTRODUCTION AND RESEARCH INTEREST

1. Are there differences in the perceived capabilities between East and West Germany?
2. To what extent can existing (gender) differences between East/West Germany be attributed to structural disadvantages and/or socialization-based mechanisms?

RELEVANCE OF UNEQUALLY DISTRIBUTED CAPABILITIES

RELEVANCE OF UNEQUALLY DISTRIBUTED CAPABILITIES

- There are still several regional and gender-related disparities in achieved functionings in Germany

- Only on the basis of fundamentally equal distributed Capability differences in the outcome (achieved functionings) can be seen as legitimate

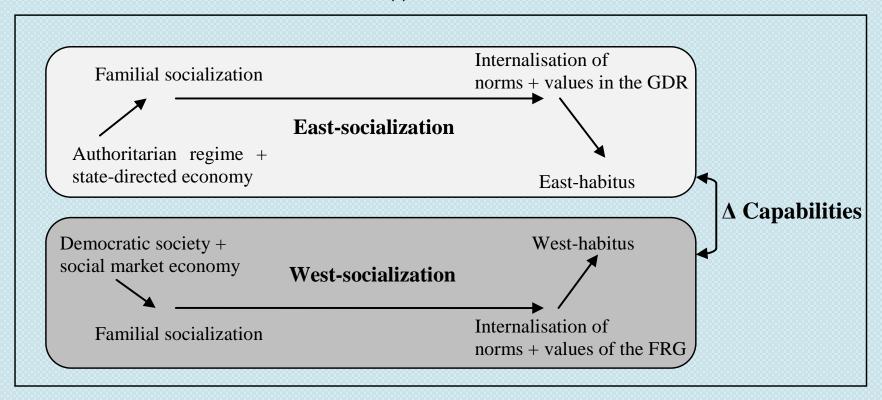- These differences then appear to be grounded on individual choice

THEORETICAL BACKGROUND AND HYPOTHESES

THEORETICAL BACKGROUND

- Two possible theoretical explanations:
  - Different socialization in East and West Germany
  - Social economic structure in East and West Germany varies

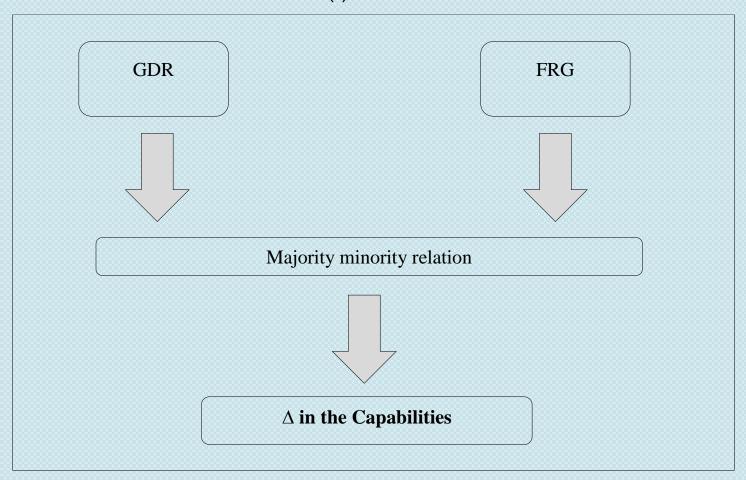   → Additional information on regional level necessary (Macro data: INKAR)

THEORETICAL BACKGROUND

Socialization vs. structural differences (?)

THEORETICAL BACKGROUND

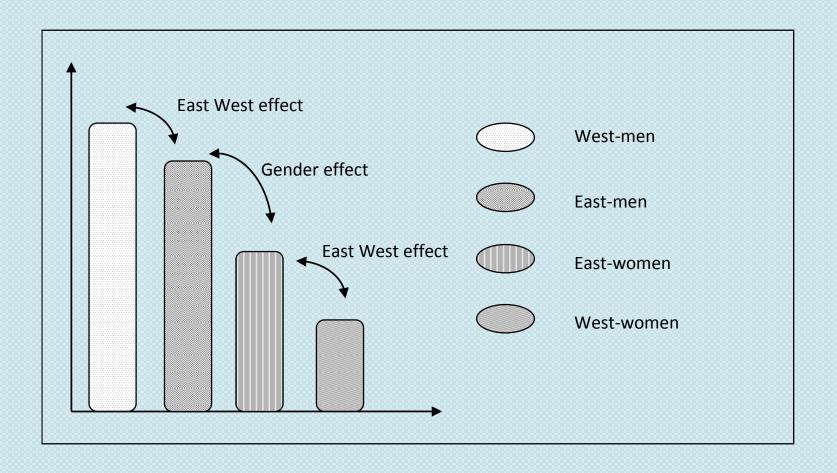Socialization vs. structural differences (?)

HYPOTHESES

H1: East Germans perceive their Overall-Capabilities to be significantly lower than West Germans.

H2: West German males perceive their Capabilities to be significantly higher than East German males.

H3: West German females perceive their Capabilities to be significantly lower than East German females.

HYPOTHESES

METHODS AND RESEARCH DESIGN

METHODS: OPERATIONALISATION OF CAPABILITIES

Investigated Capability dimensions on the basis of GeNECA questionaire

1. Income

2. Family and social contacts

3. Education

4. Secure neighborhood

5. Health

6. Eco sensitive behavior

7. Free exercise of religious belief

8. Pleasant working climate

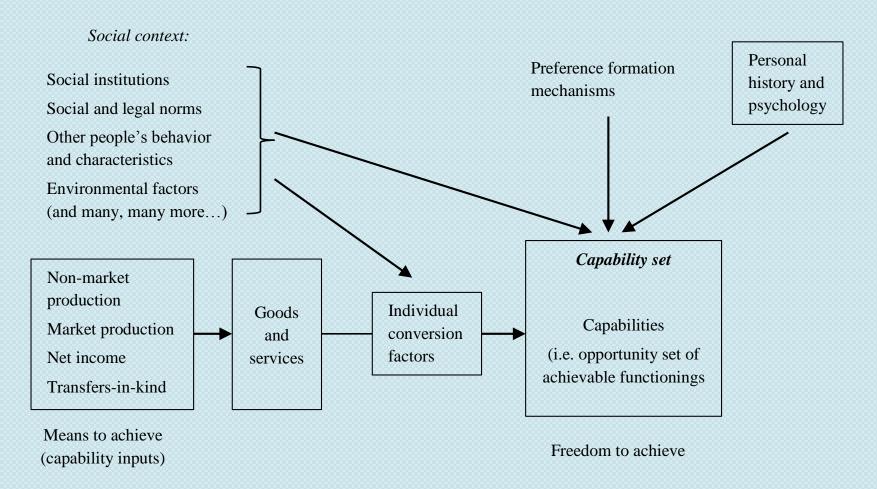9. Appropriate housing conditions

Creation of an additive index

↕

Comparison with Overall-Capabilities

→ Purpose: validation of measurement models
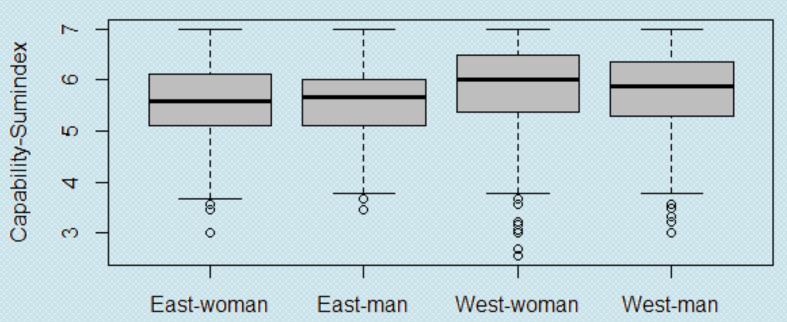
RESEARCH DESIGN

Social context:

Social institutions

Social and legal norms

Other people's behavior
and characteristics

Environmental factors
(and many, many more…)

Preference formation
mechanisms

Personal
history and
psychology

Non-market production		Individual	Capability set

Non-market
production

Market production

Net income

Transfers-in-kind

Goods
and
services

Individual
conversion
factors

Capability set

Capabilities

(i.e. opportunity set of
achievable functionings

Means to achieve
(capability inputs)

Freedom to achieve

Schematic figure of Capability-Set and contextual factors (revised presantation), Source: Robeyns (2005b: 98)
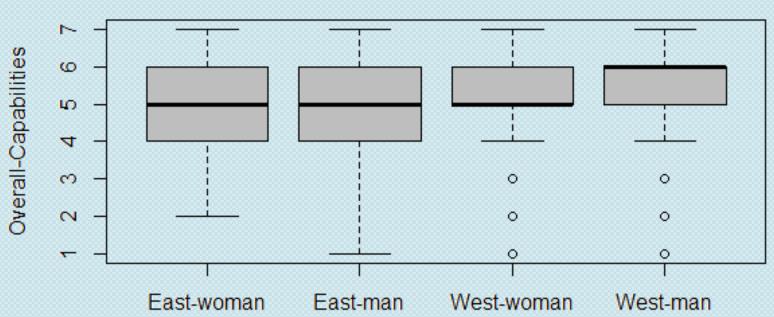
RESULTS OF DESCRIPTIVE DATA ANALYSIS

Boxplot of Capability-Sumindex depending on regional provenance and gender (residence previous to 1989)

RESULTS OF DESCRIPTIVE DATA ANALYSIS

Boxplot of Overall-Capabilities depending on regional provenance and gender (residence previous to 1989)

RESULTS OF MULTI-LEVEL-ANALYSIS

MODEL STRUCTURE

- Central dependent variables
  - Capability sumindex
  - Overall-Capabilities
- Central independent variables
- Control variables

MODEL STRUCTURE

The following variables have been embedded in the models:

- Regional provenance
- Gender
- Age, Age^2, East cohort
- Equivalence household income
- Migration background (also inner-German migration after 1989)
- Education
- Form of employment
- Marital status
- Monthly rent
- Subjective state of health
- Constraints (index) as well as preferences in 3 realms

MODEL STRUCTURE

Furthermore the following aspects have been tested with additional macro data (INKAR):

- Regional economic strength
- Structure of the regional labor market
- Supply by public institutions in the field of health and childcare

RESULTS

Multi-Level-Models	DV: Overall-Capabilities	DV: Capability-Index
East German	-0.548*	-0.534***
(Ref.: West German before 1989)	(0.302)	(0.173)
Male	0.160	-0.0428
(Ref.: Female)	(0.108)	(0.0555)
East German Male	-0.217	0.0238
(Interaction)	(0.184)	(0.0953)
Equivalised Income	0.367***	0.244***
(logarithmised, centred)	(0.106)	(0.0513)
Education		
No Certificate	0.272	0.0854
(Ref.: Hauptschule)	(0.287)	(0.147)
Realschule	0.217**	0.0373
(Ref.: Hauptschule)	(0.101)	(0.0653)
Abitur	0.238**	0.000786
(Ref.: Hauptschule)	(0.120)	(0.0650)
Other Certificate	0.827**	0.821
(Ref.: Hauptschule)	(0.345)	(0.541)
temp. employed Male	-0.184	-0.530**
(Interaction)	(0.260)	(0.214)
Duration of Unemployment	-0.0250	-0.0412*
(in years, centred)	(0.0401)	(0.0249)
Constraints	-0.670***	-0.495***
(Index, centred)	(0.0852)	(0.0588)
Preferences		
Importance: Employment	0.0428**	0.0229**
	(0.0195)	(0.00994)
Importance: Income	0.0169	0.0894***
	(0.0364)	(0.0227)
Importance: Housing	0.0944***	0.106***
	(0.0345)	(0.0254)
Context Variables (district level)		
Unemployment Rate	0.0506***	0.0431***
	(0.0174)	(0.0115)
Residents per doctor	0.000921***	0.000381**
	(0.000275)	(0.000189)
N	829	829
Number of districts	102	102
Intra-Class-Correlation	0.00	0.06

Robust Standard-Errors in parentheses, significance levels: ***(1%), **(5%), *(10%)

RESULTS: REGIONAL PROVENANCE AND GENDER

- Significant effect of regional provenance under control of regional context variables and (socialization-based) social preferences

- No gender specific differences between and within regional sub-groups

RESULTS: COMPARSON OF DEPENDENT VARIABLES

- Some effect differences:
  - Educational level only influences Overall-Capabilities
  - Labour market related individual characteristics only affect aggregated Capabilities
  - Income (and constraints) are the most important predictors, but have a stronger effect on Overall-Capabilities

  ➤ How to explain these differences?

RESULTS:TWO DISTINCT MEASUREMENT MODELS?

Explorative Factor Analysis of Capability Dimensions

Items	Factor 1	Factor 2	Cummunality
Cap. Environment	0.821		0.542
Cap. religious Faith	0.632		0.316
Cap. Health	0.599		0.505
Cap. Security	0.590		0.458
Cap. social Contacts	0.448		0.351
Cap. Housing	0.446		0.347
Cap. Work Environment	0.351	0.270	0.317
Cap. Income		0.872	0.639
Overall-Capabilities		0.672	0.447
Cap. Education		0.604	0.524
Proportion of common variance	0.758	0.685	
Proportion of total variance	0.337	0.305	0.642

Iterated Principal Factor Analysis; Promax-Rotation
N=1132; r_{F1F2}=0.636
Factor loadings <0.2 are not reported

CONCLUSION AND DISCUSSION

CONCLUSION AND DISCUSSION

- Socialization can not sufficiently explain differences between East and West Germans

  → Cohort effects for East Germans are insignificant under control of age. This points to lifecycle effects in contrast to socialization

- Structural differences cannot explain different capabilities in East and West Germany

- Question of other theoretical explanations: e.g. lifecycle effects or adaptive preferences

OPEN QUESTIONS

- What is measured by the dependent variables?
  - Capability Index of different dimensions shows other results than Overall-Capabilities
  - Results of regression model with Overall-Capabilities are mainly consistent with the theoretical assumptions and hypothesis
- Contra-intuitive effects for various variables, e.g. positive effect of regional unemployment rate → points to adaptive preferences
- After (step-wise) controlling for all individual characteristics there is no significant effect of regional provenance, but it occurs again, when regional unemployment rate is added to the multi-level-models(?)

Thank you for your attention!