Preparing Kids for Capitalism: The Effect of German Reunification on the Intergenerational Transmission of Preferences

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What Determines Economic Preferences?

Economic preferences (risk aversion, patience, work ethic, . . .) help determine choices, outcomes, and economic inequality.

Economic preferences vary widely within and across populations (Falk et al. 2018).

How are economic preferences formed?

Preference Transmission from Parents to Children

Economic preferences are highly correlated between parents and children (e.g., Domen et al. 2012).

Parent-child correlations can be explained by various channels, such as:

- **Genetic Transmission.**
- **Passive Transmission:** Mitigated through socialization by local institutions (e.g., schools or churches) or through role models in local community (e.g., Bisin and Verdier 2001).
- **Active Transmission:** Socialization by parents in response to economic conditions (e.g., Doepke and Zilibotti 2008, 2018, 2019).

How can these channels be distinguished?

East-West Differences in Socialization

East

West

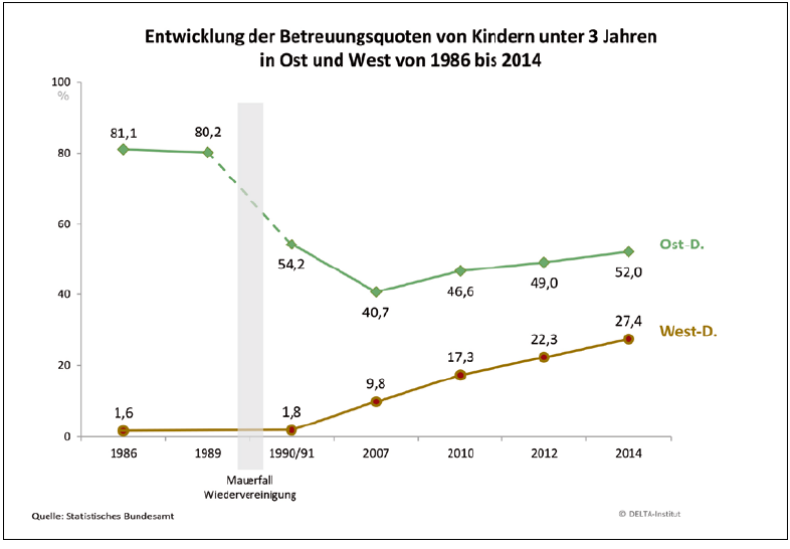
What did Reunification Do?

Little change for families from the West.

In the East:

- Switch from universal state-run childcare and all-day schooling to Western model of family care and part-day schooling.
- Switch from full-time female employment to Western model of homemaking or part-time work for mothers.
- Switch from socialism to free-market economy.
- Switch from totalitarian control to liberal democracy.

State Childcare in East and West



The Experiment of German Reunification

German reunification in 1990 can speak to transmission channels:

- **Genetic Transmission:** Should be unaffected by reunification.
- **Passive Transmission:** Should be affected through change in childcare arrangements and state indoctrination.
- **Active Transmission:** Should change through exposure to new economic environment with different returns to specific preferences.

What We Do

- Build model of preference formation that incorporates genetic, passive, and active transmission channels. Main focus: Attitudes toward risk.
- Characterize implication of each channel for how reunification should change parent-child correlations in preferences.
- Compare predictions to GSOEP data on intergenerational correlation in risk preferences.

What We Find

Strong support for genetic and active transmission channels.

Little support for passive (specifically, state-indoctrination) channel.

(Result is specific to risk attitudes; e.g., trust, patience are different.)

Outline of Model of Preference Transmission

One parent and one child.

Parent has genotype $G \in \{1, 2\}$ phenotype $P \in \{1, 2\}$.

E.g. in context of risk attitudes, P corresponds to actual risk tolerance, G to genetic predisposition toward more/less risk taking.

Formation of child's geno- and phenotypes in three stages:

1. Genetic transmission.
2. State indoctrination.
3. Parental socialization.

Genetic Transmission

Child inherits parent's genotype with probability $p_{\mathsf{T}} > 0.5$.

Child's initial phenotype $P_{C,1}$ matches child's genotype with probability $p_{\mathsf{E}} > 0.5$.

State Indoctrination

State prefers phenotype $P_C = 1$.

- t_s: Fraction of time child spends under state control.
- p_s: Probability per unit of time that indoctrination is successful.

State only attempts to influence the child if $P_{C,1} = 2$.

Child has phenotype $P_{C,2}$ after state-indoctrination stage.

If $P_{C,1} = 2$: $P_{C,2} = 1$ with probability $t_s p_s$ and $P_{C,2} = 2$ with probability $1 - t_s p_s$.

If $P_{C,1} = 1$: $P_{C,2} = 1$ for sure.

Parental Socialization

Parent can choose which phenotype $P_{\mathrm{P,T}}$ to attempt to transmit.

Parent's choice problem:

$$V_P(X,\gamma) = \max_{P_{P,T}\in\{0,1\}} E\left\{-\gamma|P_P - P_C| + zV_C(P_C,X)\right\}$$

Success probability of socialization given by $t_{\mathrm{pr}}p_{\mathrm{pr}}$.

We impose $t_{\mathrm{pr}} = f(t_{\mathrm{s}})$ with with $f'(t_{\mathrm{s}}) < 0$: Less scope for parental influence the more time children spend under state supervision.

Aggregate economic conditions X determine return to different phenotypes P_C.

Predictions: Genetic Channel

If transmission is entirely due to genetic transmission ($p_s = p_{pr} = 0$):

- **There will be a positive correlation between the phenotypes of parent and child.**
- **A regression of the child's on the parent's phenotype will be independent of time and space.**

Predictions: State Indoctrination Channel

If in addition to the genetic channel the state indoctrination channel is active ($p_s > 0$) but the parental socialization channel is not ($p_{\text{parent}} = 0$):

- **There will be a positive correlation between the phenotypes of parent and child.**
- **The correlation will be lower when state indoctrination t_s is higher.**

Predictions: Parental Socialization Channel

If in addition to the genetic channel the parental socialization channel is active ($p_{\text{pr}} > 0$):

- **There will be a positive correlation between the phenotypes of parent and child.**
- **The correlation will be lower when changes in aggregate conditions X raise the incentive to endow the child with a particular phenotype.**

Predictions for Impact of German Reunification

We interpret the reunification shock as a sharp decline in state indoctrination (lower t_s) and a change in aggregate conditions X that raises the return to preferences that are rewarded in a market economy.

The correlation in phenotypes between parents and children in the East should:

- **Stay the same** if genetic channel is dominant.
- **Increase** if state indoctrination (passive) channel is dominant.
- **Decrease** if parental socialization (active) channel is dominant.

Data

German Socio-Economic Panel (SOEP):

- Household panel conducted annually since 1984.
- Follows all household members even after they move out. This allows us to construct a sample of parents and their adult children.
- The annual personal survey contains a number of questions pertaining to preferences and attitudes.
- The survey asks people where they lived in 1989. This allows us to identify the geographic origin (East, West) of the family.

Preference and Location Measures

- Risk attitudes are measured based on a question asking how willing people are to take risks in general:

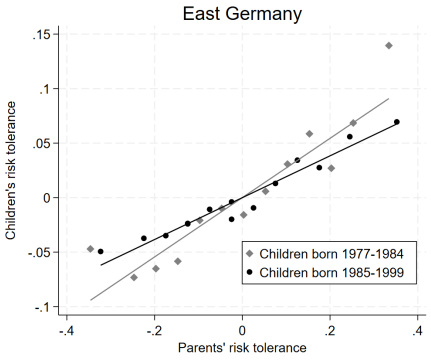
  0 (not willing at all), 0.1, 0.2, ..., 1 (very willing).

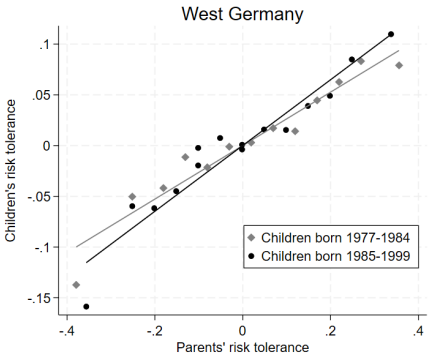
- We require that the risk attitudes of the child and both parents are observed in the same wave.
- Definition of origin of a family:
  - Children born before 1990: Child and both parents lived in the region in 1989.
  - Children born in/after 1990: Both parents lived in the region in 1989.
- We control for individual and parental characteristics and state-year fixed effects.

Sample Characteristics

	East	West
Respondents (children)	7,244	18,688
% female	48.7	48.2
% with tertiary education	12.5	11.0
% employed	61.1	58.4
% married	9.3	6.7
% living without parents	40.8	27.9
% born 1971-84	44.1	33.0
% born 1985-91	43.5	40.1
% born 1992-99	12.4	26.8

Risk Attitudes in East and West





	Risk attitudes of children born 1977-1999			
Parental attitudes	0.26***	0.29***		
Parental attitudes x East		-0.09***		
Parental attitudes, pre-1985			0.25***	0.26***
Parental attitudes, post-1985			0.30***	0.32***
Parental attitudes, post-1990				-0.03
Parental attitudes x East, pre-1985			-0.01	-0.01
Parental attitudes x East, post-1985			-0.14***	-0.17***
Parental attitudes x East, post-1990				0.06
East		0.06***		
pre 1985 x East			0.02	0.02
post 1985 x East			0.07***	0.08***
post 1990 x East				-0.02

Main Results: Changing Parental Transmission around Reunification

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Summary of Empirical Findings

Stable transmission of risk attitudes in the West throughout.

In the East, around unification:

- Rise in level of risk tolerance.
- Drop in parent-child correlation in risk tolerance.
- Effect concentrated on cohorts who were 0 to 4 years old at the fall of the Berlin wall.

What Do the Results Mean?

General correlation between parents and children consistent with role for genetic transmission.

East-West differences in transmission and changes in transmission around reunification inconsistent with genetic transmission being the only channel.

Drop in parent-child correlation around reunification argues against major role of government indoctrination channel.

Rather, changes in transmission consistent with active socialization channel.

(i.e., parents instill more risk tolerant attitudes in their children in response to the changed economic environment)

Additional Checks

Results are robust to:

- Including additional control variables.
- Including family fixed effects in a sample of siblings.
- Excluding Berlin.
- Using a broader measure of risk attitudes that covers multiple domains.
- Using only the first observation for each family.

Changes in transmission around reunification are driven by risk-averse parents.

Patterns are similar for East German families who migrated to the West and those who stayed in the East: It is not about exposure to West Germans.

Additional Checks I

	Risk attitudes of children born 1977-1999			
	East-East	East-West	Parents below median	Parents above median
Parents, pre 1985	0.26***	0.26***	0.32***	0.24***
Parents, post 1985	0.30***	0.30***	0.46***	0.30***
Parents x East, pre 1985	-0.03	0.05	-0.15	0.09
Parents x East, post 1985	-0.13***	-0.141	-0.32***	-0.08
pre 1985	0.03*	0.03*	0.07**	0.04
pre 1985 x East	0.02	-0.01	0.05	-0.02
post 1985 x East	0.05*	0.07	0.11***	0.05

Additional Checks II

	Risk attitudes of children born 1977-1999				
Specification	Cohort FEs	Family FEs	Excl. Berlin	Altern. DV	First obs.
Parents, pre 1985	0.26***	0.15***	0.25***	0.39***	0.33***
Parents, post 1985	0.30***	0.20***	0.30***	0.46***	0.30***
Parents x East, pre 1985	-0.02	-0.02	-0.01	-0.08	-0.07
Parents x East, post 1985	-0.14***	-0.11***	-0.13***	-0.13**	-0.08*
pre 1985 x East	0.03	-0.033	0.013	0.023	0.05
post 1985 x East	0.07***	0.04	0.06***	0.04**	0.04

Results for other attitudes

	Trust	Patience	Neg. reciprocity	Pos. reciprocity
Parents, pre 85	0.35***	0.23***	0.30***	0.22***
Parents, post 85	0.35***	0.17***	0.38***	0.28***
Parents x East, pre 85	-0.12**	-0.25***	0.07	-0.05
Parents x East, post 85	0.01	-0.02	-0.08	0.12**
pre 85 x East	0.02	0.16***	-0.02	0.04
post 85 x East	-0.01	0.01	0.02	-0.10**

Conclusion

German reunification allows us to examine the implications of alternative channels of intergenerational preference transmission.

Empirical findings support genetic and active socialization channels. Government indoctrination does not seem to be central.

This result appears unique for risk attitudes: For other economic preferences, empirical findings support genetic and passive socialization channels.

Economic returns to risk-taking plausibly changed the most due to the transition to free-market economy. Less clear how reunification altered the returns to patience, trust or reciprocity.