

Mixed Signals from the West: Human Capital in East Germany

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Abstract

This paper examines how exposure to external cultural content affects human capital investment in an authoritarian context. Exploiting quasi-random variation in access to West German television across East Germany—determined by topography and transmitter location—we show that access to Western media reduced educational attainment by 0.41 years of schooling and lowered the likelihood of completing upper secondary or tertiary education by 7.3 percentage points. We argue that this effect reflects a clash between the collectivist, ideologically aligned values embedded in East German schools and the individualist, consumer-oriented worldview portrayed in Western programming. Supporting evidence from post-reunification survey data shows that exposed individuals exhibit lower conscientiousness, weaker political interest, and reduced engagement in intellectual activities.

Motivation

Education as ideology, not just skill formation

GDR schooling combined human-capital formation with political socialization

Cultural exposure as an exogenous shock

Despite censorship, some East German households could receive West German TV.

Competing value systems

- GDR schools: collectivism, civic duty, socialist morality.
- Western TV: individualism, consumption, personal freedom.
- A natural setting to study how normatively misaligned cultural signals interact with state-dependent institutions.

Why does it matter?

- i) Reveals how media can undermine institutional legitimacy even without political liberalization.
- ii) Highlights the role of normative alignment in sustaining participation in education.
- iii) Offers lessons for today's globalized, digitally connected world where cross-border value diffusion can reshape motivation and compliance.



Figure 1. GDR school subject: Civics



Figure 2. FDJ poster

Natural experiment

Setting. West German TV reception in the GDR depended on topography, not household choice, with some areas having no access.

Design. Combine GDR and SOEP data with predicted signal maps.

Quasi-random exposure to Western culture. Regions with signal = treatment; no signal = control.

Identification checks. i) Similar pre-1989 regional traits. ii) Minimal migration under GDR. iii) Robust to GRD, matching, and sample restrictions.

Hypothesis. Exposure to West German TV undermined motivation to invest in education within the socialist GDR, where schooling required ideological conformity and served as a tool of state socialization.

Data and empirical strategy

- TV signal simulation from Crabtree et al. (2015)
- Variation: Individuals living in East German regions with and without Western TV access

$$Y_{it} = \beta_1 WGTVi + \beta_2 X_{it} + \alpha_i + \varepsilon_{it}$$

- Y_{it} outcome
- $WGTVi$ binary for West German TV reception
- X_{it} vector of covariates
- α_i district fixed effects

- Measures of educational attainment:

- Years of education
- Highest degree obtained according to CASMIN

- Measures of intellectual activities: Importance of (i) perfecting knowledge, (ii) being intellectually active, and (iii) being creative

- Measures of Western-specific knowledge: Financial literacy

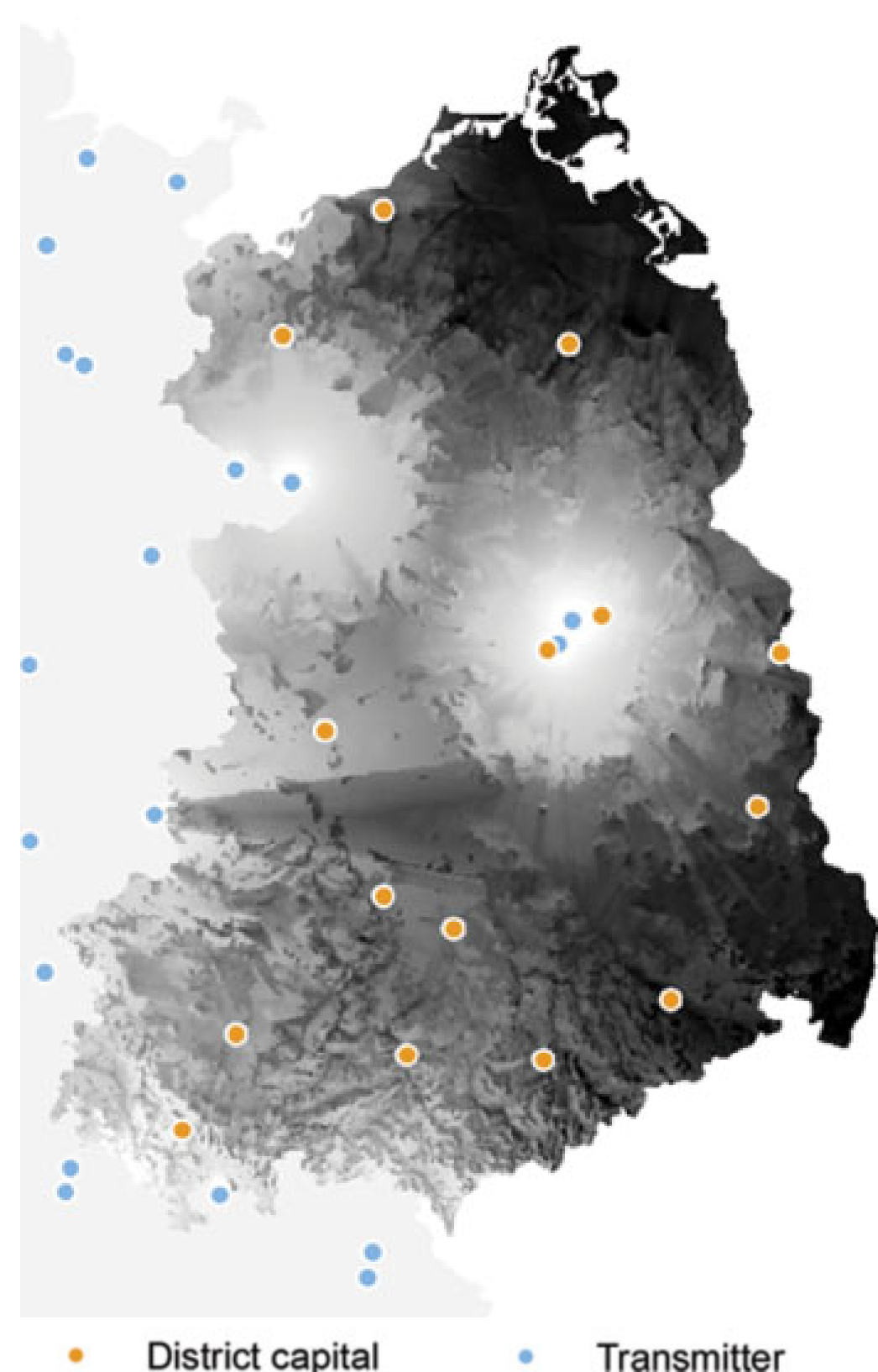


Figure 3. West German TV Signals in East Germany

West German TV and Education

Educational attainment

- German Socio-Economic Panel interviewed 4,453 individuals in 1990
- Treatment assignment via county residence information

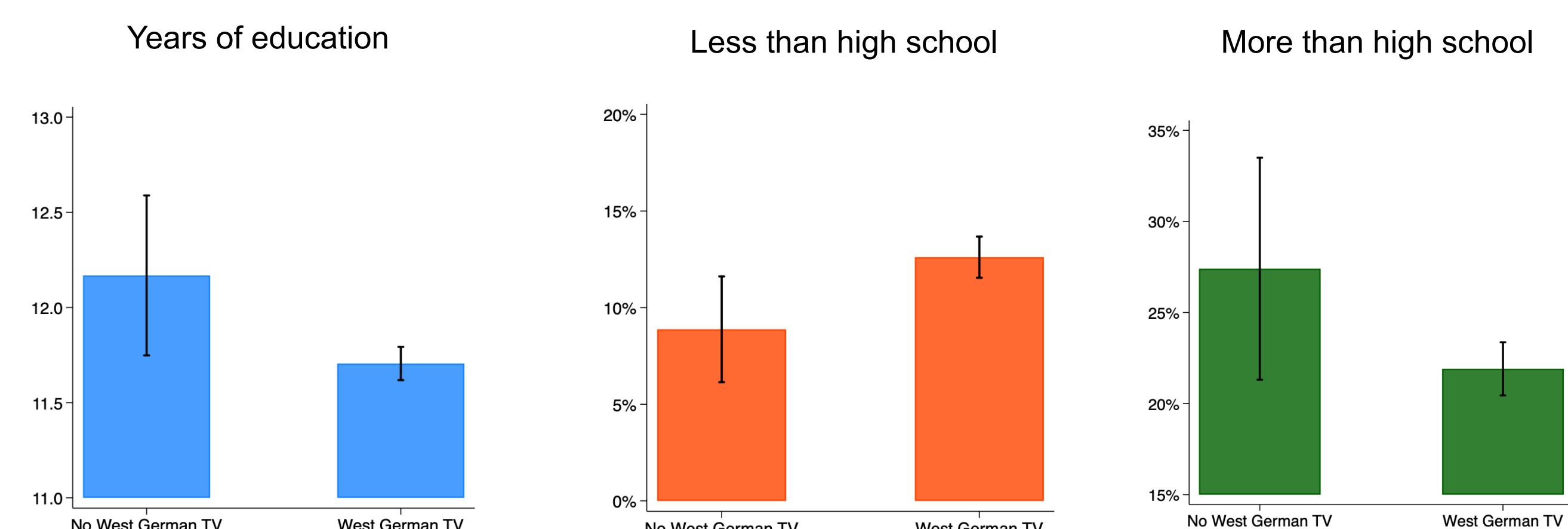


Figure 4. The effect of Western TV exposure on educational attainment in 1990

Further results:

- TV effect is more pronounced among younger respondents.
- No treatment effects among individuals who completed their highest level of education before the introduction of West German TV.
- Results remain robust across (i) a geographic RDD, (ii) alternative TV indicator specifications, and (iii) controlling for the border distance to the West.

Intellectual activities

- Political climate and social conditions in the GDR 1988/89 Survey (GESIS)
- Survey covers 3,564 individuals and includes information on:
 - i. self-reported Western TV consumption
 - ii. residence information matched to signal simulation

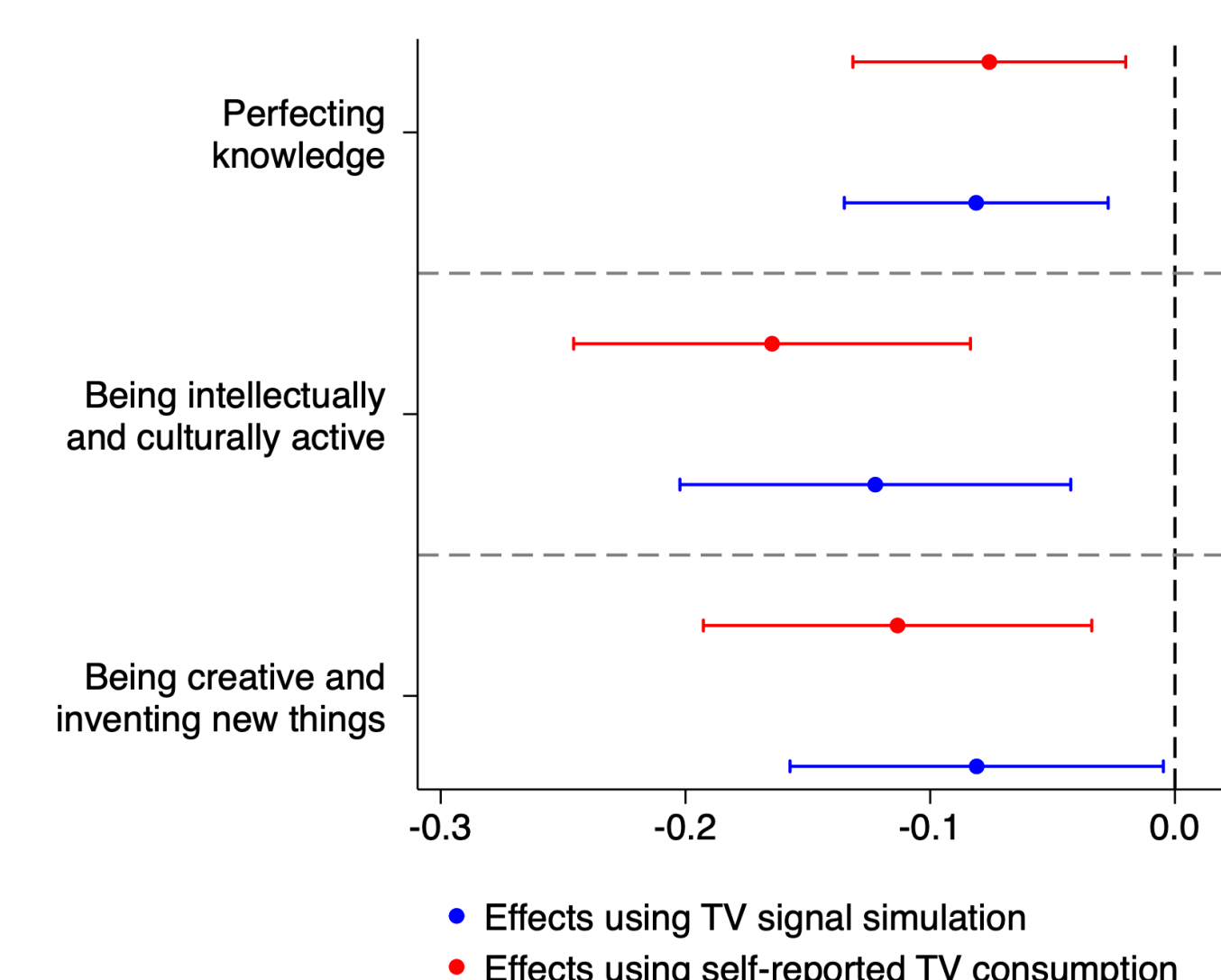


Figure 5. Impact of West German TV on attitudes

Mechanisms

- Our results suggest that treated individuals value GDR system-specific education less.
- We rule out several alternative mechanisms by showing that West German TV did not:
 - i. Alter leisure preferences,
 - ii. Affect risk or time preferences,
 - iii. Raise economic concerns, or
 - iv. Crowd out propaganda exposure.



Figure 6. Western TV show: Guidebook Money

Instead:

- Acquisition of **Western-specific knowledge**
- West German TV exposure increased financial literacy
- Differences in stock market participation vanish after a few years in reunified Germany



Figure 7. West German TV and stock market participation

Conclusion

West German TV exposure:

- **Reduced educational attainment** among GDR citizens,
- Reduced the perceived importance of intellectual goals,
- **Increased Western-specific knowledge**, such as financial literacy.
 - Access to external cultural content through mass media can influence individuals' human capital investments and educational trajectories
 - Treatment effects are long-lasting