Impersonal Trust in a Just and Unjust World: Evidence from an Educational Intervention

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Motivation

- Relationship between impersonal trust and economics outcomes such as growth, investment, and governance quality. Algan and Cahuc (2013).
Motivation

• Impersonal trust is ...
  • positively correlated with wealth accumulation
  • negatively correlated with inequality (social justice)

• Higher impersonal trust $\rightarrow$ higher economic prosperity

• Higher inequality $\rightarrow$ lower impersonal trust

Circular Causality
What do we do?

• We dig into this chicken-egg problem and...
  
  • identify the causal effect of impersonal trust on wealth and wealth inequality

• How?
  
  • Leveraging a randomly implemented educational intervention that boosted impersonal trust and reciprocity in children (exogenous variation)
  • Measuring trust and desire for redistribution using an incentivized task (trust game)
An educational intervention aiming at increasing perspective taking among children in Southeast Turkey

Objective:
- Lower peer violence, ethnic segregation, social exclusion
- Improved prosocial attributes (trust, reciprocity, cooperation, altruism)

- Full academic year
- Delivered by children’s own class teachers (extensively trained)
**Perspective Taking Curriculum**

**HAFTA 1 - EMPATİ NEDİR?**

**Amaç:** Öğrencileri empati olgusu ile tanıştırmak

**Kazanım:** Öğrenciler empatinin nasıl bir karakter özelliği olduğunu öğrenir.

**Haftanın Materyalı:** Etkinlik

**HAFTA 2 - DUYGU İŞARETLERİNİ TANIYALIM**

**Amaç:** Öğrencilere sosyal işaretleri tanımayı öğretmek

**Kazanım:** Öğrenciler sosyal işaretlerden durum çıkarmayı yapmayı öğrenir.

**Haftanın Materyalı:** Etkinlik

**HAFTA 3 - İNSANLAR FARKLI AMA DUYGULARI AYNI**

**Amaç:** Öğrencilere hissettüğümüz duygularda ortak olduğunu mesajını iletmem

**Kazanım:** Öğrenciler bireylerin açı, mutluluk, utanca gibi duygulardaki ortaklığı öğrenir.

**Haftanın Materyalı:** Video, Etkinlik

**HAFTA 4 - ARKADAŞIMIZI ANLAMAK**

**Amaç:** Öğrencilere karşı tarafın perspektifini olarak problem çözme yolu öğretmek

**Kazanım:** Öğrenciler tanık bir senaryo ile karşı tarafın perspektifini olarak bir problem çözme stratejisi öğrenir.

**Haftanın Materyalı:** Okuma parçası

**HAFTA 5 - CANLILARIN DUYGULARINI ANLAMAK**

**Amaç:** Öğrencilere, hayvanların da insanlar gibi empatiye ihtiyaç olduğunu anlamak

**Kazanım:** Öğrenciler sadece insanların değil, hayvanların da empatiye ihtiyacı olduğunu öğrenir.

**Haftanın Materyalı:** Okuma parçası

**HAFTA 6 - SÖYLENMEYEN DÜŞÜNCELERI ANLAMAK**

**Amaç:** Öğrencilere sosyal işaretlere çanım yaparak ikiilikli ilişkilerde anlayışı ve çözüm üretme yetisini kazandırmak

**Kazanım:** Öğrenciler sosyal durumlarda karşılarındaki bireyleri anlamayı öğrenir.

**Haftanın Materyalı:** Etkinlik

**HAFTA 7 - HAKSIZLIK VE ÇÖZÜMÜ**

**Amaç:** Öğrencilere etraflarında tanımlıkları doğru olan olmayan davranışlara karşı, prensipler bir düşüş sergilemelerini öğretmek

**Kazanım:** Öğrenciler kütü sosyal davranışlara karşı prensipte karşı çıkmayı öğrenirler.

**Haftanın Materyalı:** Okuma parçası
Fun Perspective Taking Activities

A. Emotion Jar

B. All for one, one for all
Evaluation Design

- A cluster randomized controlled trial (AEA Registry no: AEARCTR-0003974)
- Randomization is at the school level and stratified by province and student absenteeism
- Sample: 222 teachers (classrooms) from 80 schools about 7000 3rd and 4th grade children
- 40 schools 124 classrooms treated, 40 schools 98 classrooms kept as control.

Measuring Interpersonal Trust

- Trust Game In-Group: Recipient (Sender) is an unknown classmate
- Decisions made both as a sender and as a receiver
Impersonal Trust

- Trust Game Out-Group: Recipient is in another school in the same province.
- Decisions made both as a sender and as a receiver
The Impact of Intervention on Trust and Reciprocity

- 19.2% increase in interpersonal trust
- 12.8% increase in interpersonal reciprocity
- 14.3% increase in impersonal trust
- 12.3% increase in impersonal reciprocity

Treated children are 7 pp more likely to believe that these unknown people will send back more than half of what they receive:

Did they become too optimistic about the state of the world they live in?
Calculating Wealth and Inequality

Sender $i$’s wealth $W_i^k$ who meets receiver $j$ is:

$$W_i^k = E - X_i(1 - q_j^k m) \quad (1)$$

Receiver $j$’s wealth $W_j^k$ who receives tokens from sender $i$ is:

$$W_j^k = E + mX_i(1 - q_j^k) \quad (2)$$

- $E$ initial endowment (4 tokens)
- $X_i$ number of tokens sent by sender
- $q_j$ fraction of tokens sent back by reciprocator
- $m$ magnifying factor (3)
- $k = T, U$
Creating communities with two groups (classrooms) in each. One classroom made sender, the other receiver.

- A community where both groups are treated: The Just World (124 communities)
- A community where senders are treated, receivers untreated: The Unjust World (124 communities)
- A community where both groups are untreated: Autarky: (98 communities)
- A community where senders are untreated, receivers treated: The Kind World (98 communities)
Distribution of Reciprocity in the Data

(a) Trust: 1
(b) Trust: 2
(c) Trust: 3
(d) Trust: 4
Simulated Worlds

(a) Just World

(b) Unjust World

(c) Autarky

(d) Kind World
Once we calculate expected wealth for each child in each community, we can calculate aggregate quantities

- Per-capita wealth in each community
- Minimum and maximum wealth (the richest and the poorest in each community)
- Gini coefficient for each community
- Share of wealth captured by the wealthiest 10% in each community
Wealth and Wealth Inequality as Functions of Trust and Reciprocity

![Graphs showing the relationship between Gini coefficient and per capita wealth, varying levels of trust and reciprocity.](image-url)
### Differences in Wealth and Inequality across Worlds

<table>
<thead>
<tr>
<th></th>
<th>Per Capita Wealth</th>
<th>Maximum Wealth</th>
<th>Minimum Wealth</th>
<th>Gini Index</th>
<th>Top 10 Wealth Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Just World</td>
<td>0.205***</td>
<td>0.483***</td>
<td>0.124***</td>
<td>-0.004</td>
<td>-0.005***</td>
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<td>(0.059)</td>
<td>(0.164)</td>
<td>(0.014)</td>
<td>(0.004)</td>
<td>(0.002)</td>
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<td>Unjust World</td>
<td>0.207***</td>
<td>0.585***</td>
<td>-0.038**</td>
<td>0.014***</td>
<td>0.003*</td>
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<td>(0.059)</td>
<td>(0.166)</td>
<td>(0.018)</td>
<td>(0.004)</td>
<td>(0.002)</td>
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<tr>
<td>Kind World</td>
<td>0.003</td>
<td>-0.071</td>
<td>0.127***</td>
<td>-0.013***</td>
<td>-0.008***</td>
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<tr>
<td></td>
<td>(0.063)</td>
<td>(0.177)</td>
<td>(0.015)</td>
<td>(0.004)</td>
<td>(0.002)</td>
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<tr>
<td>p-val (Just W. = Kind W.)</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.01</td>
<td>0.02</td>
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<td>p-val (Just W. = Unjust W.)</td>
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<td>0.49</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
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<td>Observations</td>
<td>444</td>
<td>444</td>
<td>444</td>
<td>444</td>
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</tr>
</tbody>
</table>
Wealth Creation in Data

**Per Capita Wealth**
- Autarky: 5.4
- Just World: 5.7
- Unjust World: 5.6

**Maximum Wealth**
- Autarky: 8.4
- Just World: 8.8
- Unjust World: 8.8

**Minimum Wealth**
- Autarky: 3.7
- Just World: 3.85
- Unjust World: 3.85

*p-values:
- Per Capita Wealth: 0.001, 0.001, 0.963
- Maximum Wealth: 0.001, 0.004, 0.495
- Minimum Wealth: 0.031, 0.000, 0.000
Inequality Creation in Data

### Gini Index

- **Autarky**: p-value = 0.320
- **Just World**: p-value = 0.000
- **Unjust World**: p-value = 0.000

### Top 10 Wealth Share

- **Autarky**: p-value = 0.017
- **Just World**: p-value = 0.000
- **Unjust World**: p-value = 0.000
What is the Real World?

- The real world is Unjust by design

- We treated only a portion of schools to evaluate the program (RCT)

- Treated children earned 2% less rewards than control because of trusting in an Unjust World
• Impersonal trust creates wealth but also increases inequality
• Redistribution is needed to tame inequality
• Educational interventions that aim to build social capital are vital to build prosperous and just societies
• But this needs to take into account the externalities inherent in prosocial psychology
• Opportunities to build social capital should be universally accessible
The Road Ahead

- Long-term results (September, 2021)
- “Understanding Each Other” will be scaled up (2021-2022 academic year)