Lecture 12
Social engineering

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9 May 2019
Social identity, norms & engineering:  
A political economy perspective

Nation-building

Group socialization

Behavioral modification

Social norm change

Research frontiers
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Most homogenous nations did not begin homogenous

e.g. Extreme linguistic differences in early modern France

Being French was not a source of personal pride, let
alone the basis of a common identity. Before the
mid-nineteenth century, few people had seen a map of
France and few had heard of Charlemagne and Joan of
Arc. France was effectively a land of foreigners.

— Graham Robb (2008)
“The discovery of France”

Figure: France in 1477
State & nation building a gradual process of projecting power into periphery and people, reshaping society

The last miles of state building:

► In early 19th century, most villages have never seen agents of the national state

► Provincial loyalties often transcended national bonds of the nation

► 1870-1914, new forces penetrated the isolated countryside
  ▶ Judicial and school systems
  ▶ Army
  ▶ Catholic Church
  ▶ Rail & roads
  ▶ Market economy
Cantoni et al 2017: Impact of China’s 8th textbook reform
Staggered introduction of new curriculum, 2004–10

Legend

- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010

Map showing the staggered introduction of new curriculum in China, 2004–10.
Test for an impact of new curriculum by analyzing survey conducted with Peking University undergraduates

- It is extremely difficult to find opportunities to (let alone causally) identify government actions on ideology, preferences, identity

- Using a diff-in-diff design, Cantoni et al find significant effects of the new curriculum on students’ views of:
  - Chinese *governance*; e.g., greater trust in officials
  - China’s *political institutions*; e.g., viewing China as more democratic
  - *Economic institutions*; greater skepticism toward markets

- On the other hand, no significant effects on students’:
  - Ethnic or national *identity*
  - Attitudes toward the *environment*

- Effects on *behavior* mixed
  - e.g. Member of Communist Party, cooperation with minorities
**e.g. Governance outcomes**

- Trust: central government $[+](0.031)$
- Trust: provincial government $[+](0.060)$
- Trust: local government $[+](0.007)$
- Trust: courts $[+](0.084)$
- Trust: armed forces $[+](0.024)$
- Trust: police $[+](0.060)$
- Village head is not self-interested $[+](0.222)$
- VH cares not only about rich $[+](0.064)$
- Bribes are not necessary: police $[+](0.222)$
- Bribes are not necessary: document $[+](0.220)$
- Bribes are not necessary: courts $[+](0.222)$
- Bribes are not necessary: education $[+](0.222)$
- Bribes are not necessary: doctors $[-](0.410)$
- Bribes are not acceptable $[+](0.314)$
- Bribes are not effective $[+](0.222)$
- Officials would not accept bribes $[-](0.410)$
- z-score $[+](0.006)$
- z-score $[+](0.015)$

Regression coefficient on newcurr (standardized)
e.g. Political and economic institutions outcomes

- How democratic is China (0.025)
- People can influence elections (0.025)
- z-score (0.004)
- People cannot judge VH (0.016)
- People should not influence election (0.462)
- People do not know better leaders (0.462)
- Democracy is not always preferable (0.132)
- China is not suitable for democracy (0.204)
- Participation is key for democracy (0.155)
- Skeptical of markets (0.034)

Regression coefficient on newcurr (standardized)
Some notes on surveys

- Strategies for survey design
- Strategies to reduce non-response/attrition
- Strategies to reduce experimenter demand
- Ex-post sensitivity analysis
- Design-based ways to test for biased selection or survey responses
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Research frontiers
Groups use a common set of tools to socialize its members

Including use of rituals, formal education, practice

For example

- Rites of passage, initiation, hazing
- Formal education in new values, norms
- Appearance change
- Activities that promote strong in-group bonds
- Practicing new behaviors consistent with identity
- Often to the *exclusion* of material incentives

Commonly observed among

- Armed groups (Wood, E.J. 2008; Weinstein 2007)
- Universities, fraternities
- PhD programs
In principle, group socialization can solve principal-agent and coordination problems

- Rewarding agents for effort is expensive and difficult, especially when there is imperfect information
- Sanctioning and rewarding group members for public good contributions, collective action, or other cooperation and non-deviant behavior is also costly and tedious
- All of these cooperation challenges become much easier if there is some process by which the individual or agent internalizes the preferences of the principal or group
  - Principals could choose to invest in this technology or process, or in R&D to develop that technology
- Social animals exposed to natural and group selection would have advantages if they evolved psychological traits or cultural practices that
Chilling example: Recruitment of child soldiers

Figure: Joseph Kony and the Lord’s Resistance Army in northern Uganda
Evidence from a representative survey of (surviving) former child soldiers (Beber & Blattman 2013)

Figure: Forced recruitment involved violent initiations, physical and spiritual threats, spiritual and political ideological training
Figure: Differential application of socialization strategies.
Underexplored territory: Military socialization

- Militaries have to solve participation and (more importantly) incentive compatibility constraints
- Few use material incentives
- There is a huge body of practice and some (internal to military) social science on this process of socialization, but little investigation by behavioral scientists or economists

- In addition, a body of qualitative military sociology making interesting but highly controversial claims:
  - Humans have an innate reluctance to kill
  - Most soldiers in WWII either did not fire their weapons, and when they did they did not shoot to kill (Marshall 1947)
  - This reluctance can be systematically broken down by use of standard conditioning techniques (Grossman 1996)
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Cognitive behavior therapy
One of several methodologies used for re-socialization

 ► A method for treating problematic thoughts and behaviors
 ► Huge rigorous evidence base (mainly in US), especially for depression, anxiety, phobias, anger, PTSD, and (less successfully) addiction

 ► Unlike talk therapy or psychotherapy, sees a “two-way street” between thoughts and behaviors:
   1. Changing people’s thinking changes behavior
      ► Explicit discussion of problems and therapeutic method
      ► Identify & challenge causes and consequences of harmful thoughts & behaviors
   2. But changing behaviors also changes cognitions
      ► Role playing, practicing tasks
      ► Expose to real situations
      ► Processing experiences through discussion
      ► Start easy, get more difficult
Blattman et al 2017: CBT as non-cognitive skills development and also identity change

Figure: A CBT session in Monrovia with street youth – homeless, drug users, petty criminals, drug dealers, embroiled in regular everyday violence
Can CBT shape adult self-image/identity?

▶ Hypotheses:
   ▶ “Criminal outcasts” know the “regular people” norms, but those prescriptions do not apply to their social category
   ▶ CBT a way for outcasts to practice a higher-status social category

▶ Key elements of the group therapy:
   ▶ Start with appearance change, home cleanliness
   ▶ Exposure (banks, supermarkets)
   ▶ Success positively reinforced by family, friends
   ▶ Process failures and setbacks with group

▶ A second treatment arm, cash grants, enabled another form of “practice”: starting a legitimate microenterprise
Another possible channel: Developing self control and emotional regulation as a skill

▶ “Noncognitive” form of human capital
  ▶ A strong predictor of long run economic performance, including crime (Borghans et al. 2008, Heckman et al. 2006)
  ▶ Evolves over life cycle and is affected by upbringing, self-investment, and interventions (Heckman & Kautz 2013)
  ▶ Thought to be malleable in childhood and, to a lesser degree, adolescence

▶ Could affect productivity at tasks $\theta$
▶ Could affect time preferences (to the extent they are a skill not a identity-driven preference)
Model of criminal occupational choice with financial market imperfections

With preferences $\sigma$ over occupation, time preferences $\beta$ and $\delta$, and productive skills or traits $\theta$.

\[
\max_{c_t > 0, 0 \leq l_t \leq \bar{l}, L_t^b, L_t^c, K_{t+1}, a_{t+1}} \quad U(c_t, l_t, \sigma L_t^c) + \beta \sum_{i=1}^{\infty} \delta^i U(c_{t+i}, l_{t+i}, \sigma L_{t+i}^c)
\]

s.t. $c_t + a_{t+1} + K_{t+1} = F(\theta, L_t^b, K_t) + w_t L_t^c - \rho f L_{t-1}^c + (1 + r) a_t$ for each $t$ given

where $L_t^b + L_t^c + l_t \equiv \bar{L}$. 

2 × 2 factorial design

999 men

- 28%: 8-week CBT
- 25%: $200 grant
- 25%: 8-week CBT, then $200 grant
- 22%: Control group
ATEs on primary outcomes and channels

- Reduction in antisocial behaviors
- Income
- Self control skills
- Time preferences
- Antiviolent and anticriminal values

12-13 Month impact by treatment arm, standard deviations
ATEs on crime outcomes

Thefts/robberies in past 2 weeks

- Control
- Therapy only
- Cash only
- Therapy + cash

Sold drugs in past two weeks

- Short term
- Long term
ATEs on income

Why was identity and preference change persistent with income change but not? Cash = Extra months of "practice"?

**Weekly consumption (USD)**

- **Control**: +6***
- **Therapy only**: +13***
- **Cash only**: +11***
- **Therapy + cash**: 0

**Weekly earnings (USD)**

- **Control**: +4.5***
- **Therapy only**: +2
- **Cash only**: +3**
- **Therapy + cash**: 0.5, 1.3, 2
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Social norm change as changing prescriptions $P$

- **Norms:** Informal, unwritten rules enforced by social praise and sanctions.
- **Descriptive norms:** What you believe others in group $J$ do
- **Prescriptive norms:** What you believe others in group $J$ believe $J$’s ought to do
- **Personal attitude & preferences:** Internalized social norms?
- **Culture:** A body of persistent social norms/prescriptions?

- Examples of norms
  - Shake hands and make eye contact
  - Stand right, walk left
  - Allow a presenter to present without interruption (or not)
Norm change takes identities, status & salience as given
But tries to shape prescriptions, directly or through influencing actions or actions of others

\[ U_j(a_j, a_{-j}, y_J, \kappa_J, l_j \mid \psi_j) \]

\[ l_j(a_j, a_{-j}; c_j, \epsilon_j, P_J). \]

- **Others’ observed action**  \( a_{-j} \)
- **Group status**  \( y_J \)
- **Group salience**  \( \kappa_J \)
- **Internalized values/preferences of group**  \( J, \psi_j \)
- **Own assignment/association with group**  \( c_j \)
- **Own characteristics**  \( \epsilon_j \)
- **Prescriptions of group**  \( P_J \)
- **Existence of identity group**  \( I \) with prescriptions  \( P \)
Examples of social norm change

- Campaigns against female footbinding in China, female genital cutting in MENA/SSA, slavery in 19th century successfully change prescriptive norms associated with moral uprightness and respectability.

- Trump election outcome changes descriptive social norms and willingness to express xenophobic views in public (Bursztyn et al 2017).

- New information on popularity of female workforce participation leads Saudi husbands to allow their wives to work outside the home (Bursztyn et al 2018).
Recall Blouin & Mukand’s 2017 state propaganda program
Strengthening identification with, salience of, or status of national identity? Changing norms of national identity? Or changing norms within ethnic identities?

Figure: Use village-level variation in reception of government-owned-and-operated Radio Rwanda, which broadcasts ethnic trust/unity propaganda post-genocide (indicated by the color of the reception map on the left).

Figure 2: Radio Rwanda signal, district boundaries and subjects’ village locations
Setting: Rural Liberian towns and villages, 2008–12
Property disputes endemic
2010 survey of 5000 residents of 246 rural Liberian communities

- Any serious land dispute in past year: 22%
- Any land dispute that results in violence, property destruction or threats: 12%
- Any land dispute currently unresolved: 6%
- Any serious money/business dispute in past year: 13%
- Any money dispute currently unresolved: 6%
Mass education in alternative dispute resolution

Promote new skills, practices and norms to help make and sustain bargains

► Reduce asymmetric information
  ▶ Teach communication skills (e.g. active listening, seeing from other side)
  ▶ Inculcate norms of information sharing, discussion
  ▶ Encourage others to mediate

► Facilitate commitment
  ▶ Discourage defection from a forum
  ▶ Mediators, leaders, community norms informal enforcers of agreements

► Make people more rational
  ▶ Techniques for managing anger
  ▶ Encourage norms of non-violence
Program impacts after 1 and 3 years

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>1-year endline</th>
<th></th>
<th></th>
<th></th>
<th>3-year endline</th>
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<tr>
<td></td>
<td>Control mean</td>
<td>ITT</td>
<td>SE</td>
<td>ITT / control mean (%)</td>
<td>Control mean</td>
<td>ITT</td>
<td>SE</td>
<td>ITT / control mean (%)</td>
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<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
<td>(8)</td>
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<td>Outcomes for all residents (N=4,011)</td>
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<tr>
<td>Any serious dispute</td>
<td>0.221</td>
<td>0.003</td>
<td>0.016</td>
<td>1.2</td>
<td>0.087</td>
<td>0.008</td>
<td>0.011</td>
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<td>Any unresolved dispute</td>
<td>0.07</td>
<td>-0.02</td>
<td>0.008**</td>
<td>-28</td>
<td>0.024</td>
<td>0.002</td>
<td>0.005</td>
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<td>Any dispute with threats, property destruction, or interpersonal violence</td>
<td>0.122</td>
<td>-0.01</td>
<td>0.012</td>
<td>-8.1</td>
<td>0.041</td>
<td>-0.012</td>
<td>0.006**</td>
<td>-28.4</td>
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<td>Conditional on a dispute occurring (N=353)</td>
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<td>Length of dispute (months)</td>
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<td></td>
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<tr>
<td>Resolved dispute</td>
<td>0.684</td>
<td>0.072</td>
<td>0.027***</td>
<td>10.5</td>
<td>0.668</td>
<td>-0.024</td>
<td>0.046</td>
<td>-3.6</td>
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<td>Resolved via informal mechanism</td>
<td>0.193</td>
<td>0.032</td>
<td>0.024</td>
<td>16.4</td>
<td>0.251</td>
<td>0.031</td>
<td>0.051</td>
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<td>Any threats, property destruction, or interpersonal violence</td>
<td>0.554</td>
<td>-0.024</td>
<td>0.035</td>
<td>-4.3</td>
<td>0.476</td>
<td>-0.193</td>
<td>0.047***</td>
<td>-40.6</td>
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<td>Any property damage or violence</td>
<td>0.411</td>
<td>-0.037</td>
<td>0.03</td>
<td>-9.1</td>
<td>0.243</td>
<td>-0.091</td>
<td>0.042**</td>
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<td>Any threats</td>
<td>0.515</td>
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<td>0.035</td>
<td>-2.5</td>
<td>0.408</td>
<td>-0.159</td>
<td>0.048***</td>
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<td>Any property destruction</td>
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<td>-0.051</td>
<td>0.025**</td>
<td>-27.4</td>
<td>0.114</td>
<td>-0.068</td>
<td>0.027**</td>
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<td>Any violence</td>
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<td>-0.022</td>
<td>0.028</td>
<td>-6.3</td>
<td>0.202</td>
<td>-0.057</td>
<td>0.042</td>
<td>-28.5</td>
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</table>
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Research frontiers
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Wide open and so difficult to predict directions

- What is the effect of identity on motivated reasoning and information processing/avoidance?

- Nationalism and other imagined communities
  ▶ Demonstration of purposive identity change
  ▶ Understanding effectiveness of techniques and reasons for this

- Huge amount of behavior change research ongoing (especially CBT)
  ▶ Little of it so far exploring mechanisms, interactions, persistence of effects
  ▶ Little focused on identity change

- “Military sociology” and socialization into armed groups is much asserted but never convincingly demonstrated

- Have minimal groups been over-interpreted?
  ▶ Is this a focal point that dissipates in normal contexts?
  ▶ How powerful is parochial altruism or out-group antipathy in the “field”
  ▶ Understanding “dehumanization” and other techniques

- What is propaganda and why does it work?