(Economic) (Ethnic) Similarity, Difference and Conflict

Debraj Ray, New York University

[ISI Delhi, December 2018]

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Joan Esteban, Garance Genicot, Laura Mayoral, Anirban Mitra

# Within-Country Conflict



- Battle deaths 5–10m (3–8 m for interstate)
- Not counting 25m civilian deaths
- In 2015: 29 ongoing conflicts. UCDP/PRIO definition: 25+ yearly deaths.

## Majority of Within-Country Conflicts are Ethnic

• On "ethnicity," see Fearon 2003 and Chandra 2006

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- On "ethnicity," see Fearon 2003 and Chandra 2006
- 1945–1998, 100 of 700 ethnic groups participated in anti-State rebellion Fearon 2006
- "[T]he eclipse of the left-right ideological axis." Brubaker and Laitin (1998)
- It's not that Marx is entirely irrelevant, but still ...

## Economic Similarity, Ethnic Difference?

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- **Economic similarity** appears to matter more than economic *dis*-similarity:
- Conflict over *directly contested resources*;
- land, jobs, business resources, government quotas ...

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- One of the great questions of political economy:
- **Economic similarity** appears to matter more than economic *dis*-similarity:
- Conflict over *directly contested resources*;
- land, jobs, business resources, government quotas ...
- The implications of direct contestation:
- Markers to accentuate ethnic difference.
- Instrumentalism as opposed to primordialism (Huntington, Lewis)

## Similarity Versus Difference

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- Just discussed: raw exclusion far more direct than redistribution.

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- High inequality  $\Rightarrow$  investment in secondary goals (e.g. religious dominance)
- Will return to this idea later.

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- Just discussed: raw exclusion far more direct than redistribution.
- 2. Orthogonal Responses to Economic Inequality Genicot-Ray 2018
- High inequality  $\Rightarrow$  investment in secondary goals (e.g. religious dominance)
- Will return to this idea later.
- 3. Attack Incentives and the Ambiguity of Inequality Mitra-Ray 2014, 2018
- An increase in own income reduces violence directed against rival group.
- An increase in rival-group income increases violence directed against that group ....
- ... higher inequality has ambiguous effects.

- 4. Motive Versus Means Esteban-Ray 2008, 2011, Huber-Mayoral 2014
- The class marker is a two-edged sword:
- it breeds resentment, but harder for the poor to revolt
- ethnic division  $\Rightarrow$  perverse synergy of money and labor (2002 Gujarat)

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#### 5. Colonial Institutions

- Colonial fiscal institutions guard well against class conflict.
- Door is left open to other forms of conflict.
- The "empty core" problem

### Some Observations on Similarity and Difference

**Observation 1**: *Economic* Differences and Conflict (from Esteban-Mayoral-Ray, in prep.)

Lichbach survey: 43 papers, some "best forgotten". (Lichbach 1989)

• "[F]airly typical finding of a weak, barely significant relationship between inequality and political violence . . . rarely is there a robust relationship between the two variables." Mid-larsky 1988

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Variable	prio25	prio25	prio1000	prio1000	PRIOINT	PRIOINT
Gini	**- 0.01 (0.042)	**- 0.01 (0.014)	<b>0.01</b> (0.131)	**- 0.01 (0.054)	**- 0.02 (0.026)	***- 0.02 (0.004)
GDP	$\underset{(0.488)}{0.05}$	-	-0.03 (0.533)	-	$\underset{(0.871)}{0.02}$	-
GDPGR	-	***- 0.00 (0.001)	-	***- 0.00 (0.001)	-	***- 0.01 (0.000)
РОР	$\underset{(0.709)}{0.05}$	-0.08 (0.472)	$\underset{(0.140)}{0.140}$	$\underset{(0.214)}{0.10}$	$\underset{(0.300)}{0.18}$	$\underset{(0.871)}{0.02}$
OIL/DIAM	$^{***}_{(0.037)} 0.00$	$^{***}_{(0.018)} 0.00$	0.00 (0.112)	0.00 (0.124)	$^{**}_{(0.022)} 0.00$	$^{\ast\ast}_{(0.010)} 0.00$
DEMOC	$\begin{array}{c} \textbf{0.07} \\ (0.301) \end{array}$	* 0.11 (0.093)	- 0.02 (0.668)	- 0.06 (0.283)	$\underset{(0.614)}{0.05}$	0.06 (0.525)

Cross National Time Series dataset on 170 countries, 1960–2005.

Social Unrest: Weighted conflict measure based on assassinations, strikes, guerrilla warfare, government crises, purges, riots, revolutions, and anti-government demonstrations. Cross National Time Series dataset on 170 countries, 1960–2005.

Social Unrest: Weighted conflict measure based on assassinations, strikes, guerrilla warfare, government crises, purges, riots, revolutions, and anti-government demonstrations.

• *Guerrilla Warfare*. Armed activity, sabotage, bombings by independent bands of citizens or irregular forces, aimed at regime overthrow.

• *Riots*. Any violent demonstration or clash of more than 100 citizens involving the use of physical force.

• *Revolutions*. Any illegal or forced change in the top government elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government.

• Anti-Government Demonstrations. Any peaceful public gathering of at least 100 people for the primary purpose of displaying or voicing their opposition to government.





		<b>Social Unre</b>	st, 1960–2005	
	[1]	[2]	[3]	[4]
GINI	-1369*	0.223	***10363	*11.981
	(0.066)	(0.849)	(0.005)	(0.068)
GINI <sup>2</sup>			***-12181	*-12.372
			(0.003)	(0.067)
GDP	3.710	-0.422	65.731	-0.341
	(0.982)	(0.262)	(0.701)	(0.365)
РОР	532.583	0.669	556.606	0.699
	(0.162)	(0.375)	(0.134)	(0.340)
DEMOC [POLITY2]	-8.127	-0.012	-10.019	-0.013
	(0.415)	(0.385)	(0.312)	(0.336)
LAG	***0.420	***0.000	***0.416	***0.000
	(0.000)	(0.000)	(0.000)	(0.000)
C	-4481	2.101	-8024	-1.784
	(0.407)	(0.850)	(0.150)	(0.871)
Estimation	OLS	Neg. Bin	OLS	Neg. Bin
Country FE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Year FE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
R <sup>2</sup>	0.441	0.02	0.443	0.021
Obs	3357	3357	3357	3357

	[1]	[2]	[3]	[4]	_
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	(0.982)	(0.262)	(0.701)	(0.365)	
РОР	532.583	0.669	556.606	0.699	
	(0.162)	(0.375)	(0.134)	(0.340)	■ 1st $\rightarrow$ 25th Gini %-tile
DEMOC [POLITY2]	-8.127	-0.012	-10.019	-0.013	social unrest $\uparrow$ 34%
	(0.415)	(0.385)	(0.312)	(0.336)	
LAG	***0.420	***0.000	***0.416	***0.000	
	(0.000)	(0.000)	(0.000)	(0.000)	$-$ 75th $\land$ 00th Gini $\mathcal{O}_{\alpha}$ tile:
С	-4481	2.101	-8024	-1.784	1.5  and  7.5  and  7.5
	(0.407)	(0.850)	(0.150)	(0.871)	Social uniest $\downarrow 7270$
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Year FE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
$R^2$	0.441	0.02	0.443	0.021	_
Obs	3357	3357	3357	3357	

	[1] Guerrilla	[2] Riots	[3] Revolutions	[4] Demos			
GINI	**2.992	**8.602	1.456	*7.336			
	(0.022)	(0.014)	(0.141)	(0.093)			
GINI <sup>2</sup>	**-3.759	**-8.234	*-1.822	*-7.971			
	(0.010)	(0.013)	(0.097)	(0.062)			
GDP	-0.036	-0.012	-0.006	0.239			
	(0.543)	(0.951)	(0.904)	(0.292)			
РОР	-0.129	0.610	0.087	***1.114			
	(0.360)	(0.125)	(0.387)	(0.001)			
DEMOC [POLITY2]	-0.004	-0.006	-0.002	***-0.043			
	(0.384)	(0.515)	(0.447)	(0.002)			
Lag	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
C	1.618	-6.942	-1.275	**-9.647			
	(0.399)	(0.279)	(0.384)	(0.041)			
Country FE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
Year FE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$			
R <sup>2</sup>	0.296	0.405	0.341	0.365			
Obs	3360	3360	3358	3274			

#### **Components of Social Unrest, 1960–2005**

#### **SOCIAL UNREST**



#### DEMONSTRATIONS





REVOLUTIONS

Set of the set of the



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**Observation 2**: *Ethnic* Differences and Conflict (from Esteban-Ray 2011, Esteban-Mayoral-Ray 2012a, 2012b)

A warning (Horowitz 1985):

"A centrally focused system [with few groupings] possesses fewer cleavages than a dispersed system, but those it possesses run through the whole society and are of greater magnitude."

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- Deep cleavages and a measure of polarization
- Identity-alienation framework

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- Deep cleavages and a measure of polarization
- Identity-alienation framework

"We begin with the obvious question: why are we interested in polarization? It is our contention that the phenomenon of polarization is closely linked to the generation of tensions, to the possibilities of articulated rebellion and revolt, and to the existence of social unrest in general ..." Esteban and Ray (1994)

- Polarization measure  $P = \sum_{i} \sum_{j} n_i^2 n_j d_{ij}$ , where  $d_{ij}$  measures inter-group "distance."
- Ambiguous correlation with fractionalization:  $F = \sum_{i} n_i (1 n_i)$ .
- Group *sizes* receive greater emphasis.
- Theoretical connections made in Esteban and Ray (1999, 2011).

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- Group *sizes* receive greater emphasis.
- Theoretical connections made in Esteban and Ray (1999, 2011).
- Empirical Implementation Esteban-Mayoral-Ray 2012a, b
- 138 countries over 1960–2008 (pooled cross-section).
- Fearon database on groups: "culturally distinct" groups in 160 countries.
- Linguistic distances on language trees.

Var	[1]	[2]	[3]	[4]	[5]	[6]
P	$^{***}_{(0.002)} 6.07$	*** <b>6.90</b> (0.000)	*** <b>6.96</b> (0.001)	*** 7.38 (0.001)	*** 7.39 (0.001)	$^{***}_{(0.004)} 6.50$
F	$^{***}_{(0.000)} 1.86$	$^{**}1.13_{(0.029)}$	$^{**}1.09_{(0.042)}$	$^{**}1.30_{(0.012)}$	$**1.30 \\ (0.012)$	$^{**}1.25_{(0.020)}$
Рор	$^{**}_{(0.014)} 0.19$	$^{**}_{(0.012)} 0.23$	$^{**}_{(0.012)} 0.22$	$\underset{(0.141)}{0.13}$	0.13 (0.141)	$\underset{(0.131)}{0.14}$
Gdppc	-	***- 0.40 (0.001)	***- 0.41 (0.002)	***- 0.47 (0.001)	***- 0.47 (0.001)	**- 0.38 (0.011)
Oil/diam	-	-	$\underset{(0.777)}{0.06}$	$\underset{(0.858)}{0.04}$	0.04 (0.870)	-0.10 (0.643)
Mount	-	-	-	$\underset{(0.134)}{0.01}$	0.01 (0.136)	$\underset{(0.145)}{0.01}$
Ncont	-	-	-	$^{**}0.84_{(0.019)}$	** 0.85 (0.018)	$^{***}_{(0.011)} \underbrace{0.90}_{(0.011)}$
Democ	-	-	-	-	- <mark>0.02</mark> (0.944)	$\underset{(0.944)}{0.02}$
Excons	-	-	-	-	-	$\begin{array}{c} \textbf{-0.13} \\ (0.741) \end{array}$
Autocr	-	-	-	-	-	$\underset{(0.609)}{0.14}$
Rights	-	-	-	-	-	$\underset{(0.614)}{0.17}$
Civlib	-	-	-	-	-	$\underset{(0.666)}{0.16}$
Lag	$^{***}_{(0.000)} 2.91$	$^{***} \underset{(0.000)}{2.81}$	$^{***}_{(0.000)} 2.80$	$^{***} \underset{(0.000)}{2.73}$	*** 2.73 (0.000)	$^{***}_{(0.000)} 2.79$

Baseline: Prio25, Fearon groupings, max likelihood logit

							-
Var	[1]	[2]	[3]	[4]	[5]	[6]	_
Р	$^{***}_{(0.002)} 6.07$	$^{***}_{(0.000)} 6.90$	$^{***}_{(0.001)} 6.96$	$^{***}_{(0.001)} 7.38$	*** 7.39 (0.001)	$^{***}_{(0.004)} 6.50$	
F	$^{***}_{(0.000)}$	$^{**}_{(0.029)} 1.13$	$^{**}_{(0.042)} 1.09$	$^{**}_{(0.012)} 1.30$	** <mark>1.30</mark> (0.012)	$^{**} \underset{(0.020)}{1.25}$	
Рор	$^{**} \underset{(0.014)}{0.19}$	$^{**} 0.23 \ (0.012)$	$^{**} \underset{(0.012)}{0.012}$	$\underset{(0.141)}{0.13}$	0.13 (0.141)	$\underset{(0.131)}{0.14}$	
Gdppc	-	***- 0.40 (0.001)	***- 0.41 (0.002)	***- 0.47 (0.001)	***- 0.47 (0.001)	**- 0.38 (0.011)	■ $P(20 \rightarrow 80)$ Prio25 13% $\rightarrow 29\%$
Oil/diam	-	-	$\underset{(0.777)}{0.06}$	0.04 (0.858)	0.04 (0.870)	- 0.10 (0.643)	
Mount	-	-	-	0.01 (0.134)	0.01 (0.136)	0.01 (0.145)	■ $\mathbf{F}(20 \rightarrow 80)$ Prio25 12% $\rightarrow$ 25%
Ncont	-	-	-	$^{**}$ 0.84 (0.019)	** 0.85 (0.018)	*** 0.90 (0.011)	
Democ	-	-	-	-	- 0.02 (0.944)	0.02 (0.944)	
Excons	-	-	-	-	-	- 0.13 (0.741)	
Autocr	-	-	-	-	-	0.14 (0.609)	
Rights	-	-	-	-	-	0.17 (0.614)	
Civlib	-	-	-	-	-	$\underset{(0.666)}{0.16}$	
Lag	$^{***}_{(0.000)} 2.91$	$^{***} \underset{(0.000)}{2.81}$	$^{***} \underset{(0.000)}{2.80}$	$^{***} \underset{(0.000)}{2.73}$	$^{***} \underset{(0.000)}{2.73}$	$^{***}_{(0.000)} 2.79$	

### Baseline: Prio25, Fearon groupings, max likelihood logit

### Variations

- Alternative definitions of conflict (e.g., social unrest as before)
- Alternative definition of groups: *Ethnologue*
- Binary versus language-based distances
- Conflict onset
- Interactions constructed with measures of relative publicness
- Region and time effects
- Other ways of estimating the baseline model

### **Observation 3**: Ethnicity-Economics Interaction

Economics of Hindu-Muslim violence (Mitra and Ray 2014, 2018)

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- Recall earlier discussion of the ambiguity of inequality:
- An increase in rival income increases violence directed against rival group.
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### **Observation 3**: Ethnicity-Economics Interaction

- Economics of Hindu-Muslim violence (Mitra and Ray 2014, 2018)
- Recall earlier discussion of the ambiguity of inequality:
- An increase in rival income increases violence directed against rival group.
- An increase in own income reduces violence directed against rival group.
- Religious/national/ethnic markers matter among economically similar people ...
- ... but for economic, not primordial reasons.
- The parallels to Trump's America are unsettling.

### Hindu-Muslim income ratios (NSS exp data):

State				Exp.					
		1983	1983 1987-8			1993-4			
	H/M	Min	Max	H/M	Min	Max	H/M	Min	Max
Andhra Pradesh	0.99	0.96	1.09	0.99	0.92	1.17	0.99	0.84	1.16
Bihar	0.98	0.88	1.12	1.07	1.02	1.12	1.03	0.93	1.16
Gujarat	1.02	0.89	1.19	0.98	0.78	1.14	1.06	0.88	1.13
Haryana	1.2	1.07	1.53	0.96	0.85	1.05	1.60	1.39	1.93
Karnataka	0.98	0.84	1.19	1.00	0.83	1.07	1.01	0.69	1.15
Kerala	1.10	1.07	1.19	1.15	1.15	1.16	1.01	0.92	1.16
Madhya Pradesh	0.92	0.78	1.38	0.86	0.71	1.04	0.88	0.62	1.16
Maharashtra	1.04	0.97	1.25	1.04	0.74	1.29	1.12	0.87	1.42
Orissa	0.69	0.36	1.04	0.85	0.58	0.93	0.96	0.73	1.13
Punjab	0.86	0.75	1.15	1.21	1.19	1.22	1.18	1.08	1.34
Rajasthan	0.97	0.43	1.18	1.02	0.46	1.19	1.22	1.06	1.35
Tamil Nadu	1.06	0.82	1.44	0.88	0.80	0.94	0.98	0.85	1.05
Uttar Pradesh	1.12	1.01	1.23	1.11	0.95	1.54	1.08	0.93	1.31
West Bengal	1.18	1.05	1.26	1.21	1.05	1.31	1.25	1.07	1.38
# Some Ethnographic Literature

- Bombay riots [land] (Thakore 1993)
- Calcutta riots [land] (Das 2000)
- Bhiwandi and Meerut riots [textiles] (Rajgopal 1987, Khan 1992)
- Jabbalpur, Kanpur, Moradabad riots [*bidis*, brassware] (Engineer 1994, Khan 1991)
- Varanasi riots [sari dealers] (Upadhyaya 1992)
- Varanasi riots [wholesale silk] (Wilkinson 2004)
- Ahmedabad [housing] (Field et al 2009)

#### **Example:** Engineer (1987) on Meerut riots:

"If [religious zeal] is coupled with economic prosperity, as has happened in Meerut, it has a multiplying effect on the Hindu psyche. The ferocity with which business establishments have been destroyed in Meerut bears testimony to this observation. Entire rows of shops belonging to Muslims ... were reduced to ashes."

#### **Example:** Engineer (1987) on Meerut riots:

"If [religious zeal] is coupled with economic prosperity, as has happened in Meerut, it has a multiplying effect on the Hindu psyche. The ferocity with which business establishments have been destroyed in Meerut bears testimony to this observation. Entire rows of shops belonging to Muslims ... were reduced to ashes."

And yet...

• Wilkinson (2004):

"Despite the disparate impact of riots on Hindus and Muslims, however, little hard evidence suggests that Hindu merchants and financial interests are fomenting anti-Muslim riots for economic gain..."

Horowitz (2001, p. 211):

"The role that commercial competition is said to play is said to be a covert, behindthe-scenes role, which makes proof or disproof very difficult."

#### Data

- **Conflict data.** Varshney-Wilkinson (TOI 1950-1995)
- our extension (TOI 1996-2000).
- extension by Iyer et al (TOI 2001-2010)
- Income data. NSS consumer expenditure data.
- Rounds 38 (1983), 43 (1987-8), 50 (1993-94), 55 (1999-2000), 61 (2004-2005).

**Controls:** 

- Various sources, in particular Reports of the Election Commission of India.
- **Five-period panel** at the regional level; 55 regions.
- Poisson, negative binomial, OLS.







#### Casualties, 5-Year Average Starting Just After

	[Poiss]	[Poiss]	[NegBin]	[NegBin]	[OLS]	[OLS]
H Exp	***-7.87	***-6.82	**-2.79	-3.31	**-9.15	*-8.46
M Exp	(0.005) ***5.10	(0.003) ***4.67	(0.093) **2.64	(0.131) ** <b>3.87</b>	(0.033) ***6.89	(0.085) *** 9.52
Рор	(0.000) 4.28	(0.001) <b>3.91</b>	(0.040) <b>0.62</b>	(0.023) 0.74	(0.006) -3.87	(0.009) -1.23
RelPol	(0.468) *5.55	(0.496) *5.57	(0.149) <b>0.72</b>	(0.132) <b>1.09</b>	(0.614) <b>6.00</b>	(0.877) <b>6.86</b>
Gini H	(0.054)	(0.056) -5.426	(0.763)	(0.715) <b>4.121</b>	(0.470)	(0.408) -14.473
Gini M		(0.317) <b>3.399</b>		(0.521) -5.952		(0.342) -11.073
		(0.497)		(0.362)		(0.451)
Lit, Urb	Y	Y	Y	Y	Y	Y

• Muslim exp  $\uparrow 1\% \Rightarrow$  Cas  $\uparrow 3-5\%$ .

Hindu exp  $\uparrow 1\% \Rightarrow$  Cas  $\downarrow -7--3\%$ .

#### Variations

- Other measures of conflict (number of riots, killed)
- Three-period, five-period panel
- Urban alone, Ahmedabad included or excluded
- The use of Hindu-Muslim expenditure *ratios*.
- Examination of the lag structure.
- Political controls
- Endogeneity (instrument H-M exp ratio by national returns to occupations)
- Ruling out other interpretations; e.g., funding.
- Different specifications: Poisson, neg binomial, ...

	[1]	[2]	[3]	[4]	[5]	[6]
H pce	***-3.420	***-4.076	**-3.460			
	(0.007)	(0.003)	(0.015)			
M pce	**1.662	**1.793	*2.010			
	(0.027)	(0.025)	(0.053)			
M/H				***1.874	***2.097	**2.051
				(0.008)	(0.003)	(0.019)
Average Per-Capita Exp.				**-2.266	**-2.772	-2.419
				(0.027)	(0.023)	(0.139)
Рор	0.240	1.141	1.156	0.333	1.246	1.251
	(0.831)	(0.294)	(0.281)	(0.768)	(0.249)	(0.241)
RelPol	**2.306	***3.745	***3.732	*2.122	***3.551	***3.574
	(0.038)	(0.000)	(0.000)	(0.070)	(0.000)	(0.001)
Primary Edu.	~ /	***0.087	***0.087		***0.088	***0.089
5		(0.006)	(0.007)		(0.005)	(0.005)
Gini H			-2.213			-1.699
			(0.520)			(0.593)
Gini M			-1.406			-0.317
			(0.551)			(0.896)
<b>BIPLS</b> seatshare	**1 260	***1 637	***1 621	**1 319	***1 705	***1 710
Dor ES soutsituie	(0.037)	(0.003)	(0.003)	(0.032)	(0.002)	(0.002)
	(0.057)	(0.005)	(0.005)	(0.052)	(0.002)	(0.002)
Log-Likelihood	-4,875.09	-4,361.15	-4,325.55	-4,784.98	-4,259.42	-4,247.07
Number of observations	224	224	224	224	224	224

5-period Poisson FE (urban hh, excluding region containing Ahmedabad).

#### The Frustrations of Difference

- There are many ways of approaching these phenomena:
- None in itself fully satisfactory.
- My focus: the failure of aspirations.

# The Development Treadmill



Netherlands, 1350-1800, 350

United Kingdom, 1700-1870, **150** 

United States, mid-19th c, 47

United States, mid-20th c, 35

Brazil, mid-1960s, <mark>18</mark>

Korea, late 1960s, **11** 

China, 1980→, **7–9** 

#### and Uneven

- To that ever-tilting treadmill, add uneven growth.
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- To that ever-tilting treadmill, add uneven growth.
- Structural transformation, technical progress, globalization
- Social basis for individual preferences:
- Absurd to think about inequality, unrest, conflict, etc. without this.
- Unclear if such exposure to the lives of others leads to betterment or to despair.

"The French found their position all the more intolerable as it became better." de Tocqueville, 1856

Hirschman's tunnel

Aspirations Ray (1998, 2006), Appadurai (2004), Genicot-Ray (2017)

Multidimensional reference point:

 $\mathbf{a} = \Psi(\mathbf{y}, F),$ 

 $\mathbf{y} = \text{personal outcomes}$ 

F = social distribution of outcomes.

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• Payoffs: **a** serves as anchor for payoff function:

 $u(\mathbf{c})+w_0(\mathbf{z})+w_1(\mathbf{e}),$ 

• where **z** is future outcome and  $e_k = \max\{z_k - a_k, 0\}$ .

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**2-way:** aspirations  $\longrightarrow$  outcomes  $\longrightarrow$  aspirations.



















The milestone nature of aspirations generates sudden tip-overs.



Proposition. For every wealth w, there is a threshold a(w) below which aspirations are met, and above which frustrated. When met, investment grows with aspirations. But once frustrated, investment jump *discontinuously* downward and thereafter remain insensitive to or decline with aspirations.

More generally, aspirations are multidimensional.

- [individual]: income, health, education, housing
- [collective]: public goods, power, religious/cultural/ethnic dominance.

- More generally, aspirations are multidimensional.
- [individual]: income, health, education, housing
- [collective]: public goods, power, religious/cultural/ethnic dominance.
  - ... and a research program can be built around this framework:
- poverty traps (Appadurai 2004, Dalton et al 2016, Ray 1998, 2006)
- growth and inequality (Bogliacino and Ortoleva 2016, Genicot and Ray 2017)
- socio-economic mobility (Esteban et al 2016)
- risk-taking (Bondi and Ray, in prep.)
- doubling-down in the face of bad shocks (Genicot and Ray, in prep.)

"appropriate goal-setting" (Schwenkenberg 2010, Kearney 2016, Besley 2017, Goux 2017)

1. Are aspirations determined by our social surroundings, or can we control them?

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2. Can we use frustrated aspirations to understand discontent in societies that exhibit rapid changes in per-capita income?

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3. If uneven growth leads to social unrest via the channel of frustrated aspirations, do we expect those frustrations to be directed against those that benefit the most from growth, or against a third party?

4. Are political leaders who are unable (or unwilling) to control high and rising economic inequality, able to create "second-best" release valves by directing animosities in "orthogonal directions"? Consolation Prizes: Orthogonal Responses to Economic Inequality

Scapegoating (Dollard et al 1939)

• a group unable to achieve their goals can redirect its frustration and aggression at a group that is not the causal agent of the frustration.

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**Two-dimensional aspirations (Genicot-Ray 2018):** 

- 1: economic investments, typically private.
- 2: cultural, religious, nationalistic dominance investments, often collective.
Consolation Prizes: Orthogonal Responses to Economic Inequality

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- **Two-dimensional aspirations (Genicot-Ray 2018):**
- 1: economic investments, typically private.
- 2: cultural, religious, nationalistic dominance investments, often collective.
- Choose "investments" (x, r) to max

$$u(y-x-r) + w_0(z) + w_1(\max\{z-a,0\}) + S(r)$$

- where  $w_0$  and  $w_1$  are the usual aspirational payoffs
- S(r) is a "superiority payoff" (any increasing function, could be endogenous).

$$u(y-x-r) + w_0(z) + w_1(\max\{z-a,0\}) + S(r)$$

$$u(y-x-r) + w_0(z) + w_1(\max\{z-a,0\}) + S(r)$$

■ Proposition. As economic inequality increases, "dominance investments" initially fall and then rise — discontinuously after a critical threshold is crossed.

Dominance investments highest for the richest and among the poor (perhaps in different forms).



### Discussion

• Why does the aspirations-based model deliver this prediction?

In a "concave setting," an increase in inequality must increase the marginal return to investment, thereby unambiguously *reducing the orthogonal response*.

• Here, private investment *drops*. The freed-up resources are then deployed "side-ways," towards another, relatively reachable objective.

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No. To some degree, higher inequality will spur more investment of the economic kind. But it must then pass through a phase of "orthogonal collective action."

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- With extremely high inequality, conflict could fall again owing to income effects.
- What is the role of leadership?
- Develop social markers, solve coordination problems (S(r) endogenous).

# Similarity, Difference and Conflict: A Summary

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- The nonlinearity of the inequality-conflict relationship
- The salience of ethnic conflict
- The complex response of conflict to economic change

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- The complex response of conflict to economic change
- Aspirations and conflict:
- Starting point: orthogonal response to high inequality
- Conflict across economically similar groups
- Other correlates of similar-group conflict:
- Direct contestability, funding, ambiguity of inequality

#### Policy?

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- The use of ethnicity as instrumental markers
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And finally ...

- To what extent does India fit?
- I leave this for you to discuss.