

Do Preferences Align? Participatory Democracy in Rural India

Jeffrey S. Hammer, Princeton University
Megha Patnaik, LUISS University
Yashaswini Shekhawat, University of Bonn

19 December 2019

Motivation

- ▶ Decentralisation: local governments have more information
- ▶ Elite capture (Bardhan & Mookherjee, 2000)
- ▶ Tyranny of the majority (Mill, 1959)
- ▶ Evidence for India:
 - ▶ Besley et al (2011): elected councilors beneficiaries of targeted programs, Pradhan's village obtaining a larger share of public goods
 - ▶ Besley, Pande, Rao (2005): Gram Sabhas attended more by socially disadvantaged groups, and holding Gram Sabhas makes the targeting of beneficiary selection more effective.
 - ▶ Chattopadhyay and Duflo (2004): women leaders invest more in public goods relating to women's concerns in both West Bengal and Rajasthan.

This paper

- ▶ This paper uses a baseline survey in Karnataka for the Gram Swaraj Project aimed at distributing untied fund to local governments.
- ▶ It directly captures the top priorities for households, GP members and GP secretaries.
 - ▶ First such study to our knowledge which directly captures priorities
- ▶ We build an “agreement score” using the priorities of the households, elected representative (GP Members) and bureaucrat (GP Secretaries)
- ▶ We adopt a dyadic regression setup (Fafchamps and Gubert, 2007) to measure the role of caste and gender in agreement.

Summary of results

- ▶ GP Secretary has low agreement with all caste groups
- ▶ Upper castes have different priorities than other castes
- ▶ Low evidence of in-caste affiliations
- ▶ Do not find evidence of elite capture: Upper castes not represented better by GPMs than SCs are
- ▶ Tyranny of majority:
 - ▶ Highest agreement is between OBC GPMs and (majority) OBC HHs but OBC GPMs represent the ST HHs and Upper caste HHs better than their own GPMs
 - ▶ ST households are best represented by OBC GPMs, significantly better than representation by ST GPMs
- ▶ Gender: Women care more about sanitation than men; agreement scores are similar across gender combinations and not significantly different

Data

- ▶ Baseline survey of WB Gram Swaraj Project in Karnataka
- ▶ Aim: untied funds to be given to local governments in 37 poorest taluks (at least 5 lakh rupees to each panchayats)
- ▶ Measures of literacy, wealth, political awareness
- ▶ Survey asked households, GPMs and GPS of a panchayat their top priorities for the GP (eg. drinking water, sanitation, housing, anganwadi..). ~20 broad categories for priorities constructed from raw preferences.

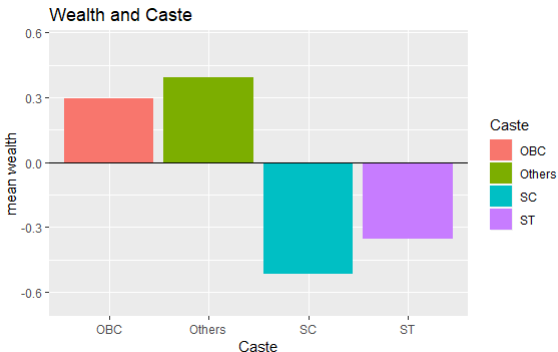
Demographics

- ▶ Sample villages are in dry northern Karnataka and remote relative to district HQ
- ▶ More than 40% of household heads are illiterate, 20% are literate but without schooling
- ▶ About 70% own land but only 25% have the land irrigated
- ▶ Caste distribution:

Caste:	
Scheduled Caste (SC)	23.18%
Scheduled Tribe (ST)	11.36%
Other Backward Castes (OBC)	38.02%
Others	27.43%

Demographics

- ▶ Wealth index using asset ownership + food consumption
- ▶ Additional questions on whether every individual in house has own shoes and bed
- ▶ Similar wealth to using only asset ownership but longer left tail
- ▶ Wealth correlates with caste and literacy:



What do different groups want?

SC	ST
Other road (24.58%)	Other road (22.95%)
Other water (16.63%)	Drinking Water(18.36%)
Drinking Water(12.89%)	Drainage (15.56%)
Sanitation (11.24%)	Other water (13.9%)
Drainage (10.87%)	Sanitation (10.52%)
OBC	Others
Sanitation (21.16%)	Other road (27.54%)
Other road (17.38%)	Other water (18.86%)
Drinking water(15.9%)	Drainage (12.54%)
Other water (14.12%)	Drinking water (9.63%)
Drainage (12.36%)	Electricity (8.93%)

Upper caste preferences differ*

	First choice drinking water	Any choice drinking water	First choice: other water	Any choice: other water	First choice: Electricity	First choice: Roads
SC	0.023	0.039	-0.016	-0.033	-0.02	-0.025
	(0.02)	(0.02)	(0.02)	(0.03)	(0.01)	(0.03)
ST	0.088***	0.114***	-0.045	-0.112***	-0.046**	-0.048
	(0.02)	(0.03)	(0.02)	(0.03)	(0.01)	(0.04)
OBC	0.062**	0.101***	-0.042*	-0.121***	-0.053***	-0.104***
	(0.02)	(0.03)	(0.02)	(0.03)	(0.01)	(0.03)
Wealth	-0.001	0.008	-0.002	0.002	0.005	-0.00
	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)
Illiterate	0.014	0.029	-0.037*	-0.048**	0.017	-0.018
	(0.01)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)
Int. vill	-0.119**	-0.123**	0.007	0.031	-0.020	0.054*
	(0.04)	(0.04)	(0.02)	(0.03)	(0.02)	(0.03)

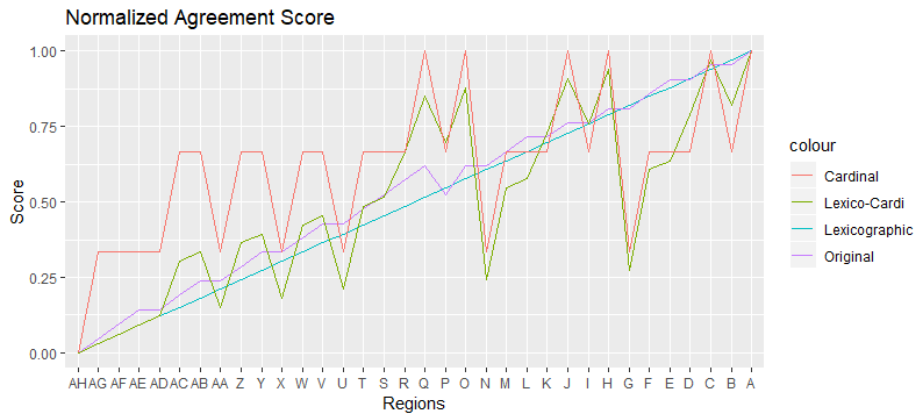
Agreement score

- ▶ Agreement score constructed based on whether items mentioned in the household list of priorities are represented in the GPM/GPS priority list.
- ▶ Highest agreement is if all of the household priorities are represented in the exact same order in the GPM/GPS priorities and lowest agreement if none of the household priorities are represented in the GPM or GPS priorities
- ▶ We can consider all 34 combinations of overlap:
 - ▶ $(1,2,3) \rightarrow (1,2,3)$,
 - ▶ $(1,2,3) \rightarrow (1,2,\phi)$,
 - ▶,
 - ▶ $(1,2,3) \rightarrow (\phi,\phi,\phi)$

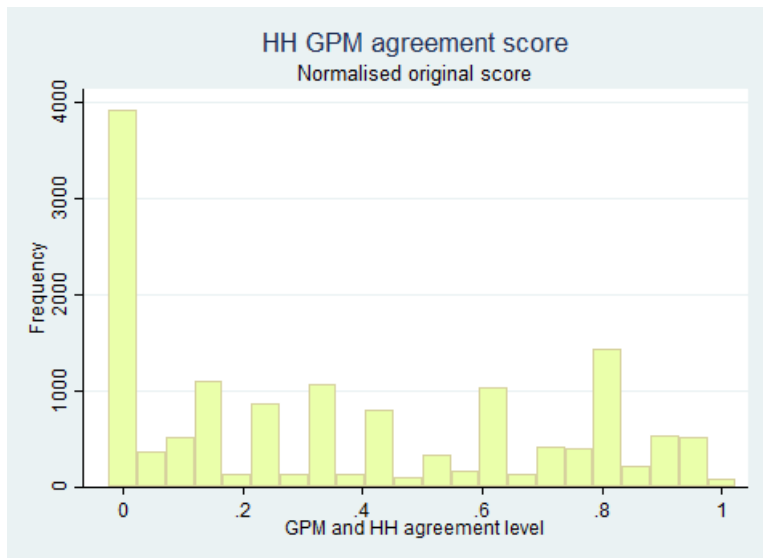
Agreement score

- ▶ Next we want to rank these combinations
 - ▶ Note that sometimes there is a conflict e.g. does $(1,2,3)$ match better with $(2,3,1)$ or $(1, \phi, 3)$?
 - ▶ We want **cohesion** and **quality** in our agreement measure
 - ▶ Economists may differ in their ranking across pairs of 3-tuples: by Arrow's theorem there is no one reasonable aggregation of the alternative rankings that is not a dictatorship.
 - ▶ Thus we take a ranking grouping some equivalence combinations which satisfies both characteristics

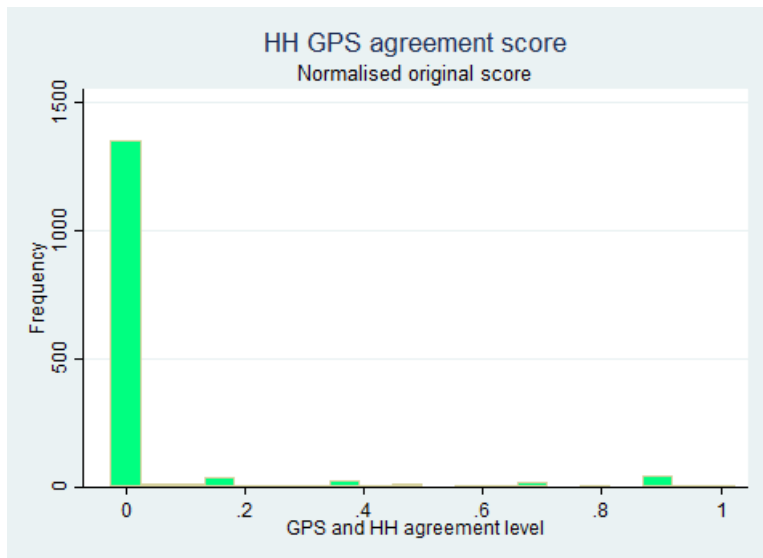
Alternative scores



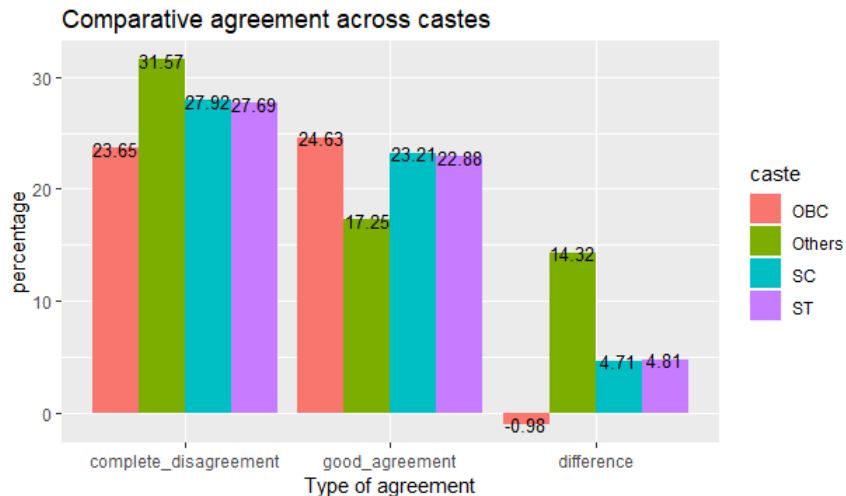
Agreement with GPM



Agreement with GPS



GPMs of different castes representing HHs



Dyadic regression setup

The dependent variable is a HH-GPM pair and the independent variables are individual/shared characteristics. The directional dyadic regression equation is given by:

$$Y_{ij} = \alpha + \beta_1(z_i - z_j) + \beta_2(z_i + z_j) + \gamma x_i + \tau w_j + u_{ij}$$

where:

- ▶ Y_{ij} : the agreement score between household i and GPM j in a GP
- ▶ z_j : caste of GPM
- ▶ z_i : caste of HH
- ▶ z_j : caste of GPM
- ▶ x_i, w_j : are controls at the HH and GP level (wealth, literacy, political awareness..)

Significance and F-tests

1. The standard errors are correlated for elements of the variance-covariance matrix corresponding to the same household or same GPM. We use 2 way clustering to obtain the correct standard errors (Cameron & Miller, 2014)
2. Linear combinations of the coefficients can be used to build series of hypothesis tests for differences in predicted agreement scores among pairs relative to a base pair. We use these to test for:
 - 2.1 In-caste affiliation
 - 2.2 Elite capture by upper castes
 - 2.3 Tyranny of the majority

Dyadic regression predicted scores

All agreement scores measured relative to $OBC^{HH} - OBC^{GPM}$:

GPM					
		SC	ST	OBC	OTHERS
HH	SC	8.02	7.31**	8.35	7.28**
	ST	7.06**	6.35***	7.52***	6.44***
	OBC	8.12	7.27***	8.44	7.49***
	OTHERS	7.03**	6.21***	7.25***	6.3***

Interpretations

1. **In caste affiliation:** the diagonal terms are not always greater than the off-diagonal terms
2. **Elite capture:** Upper caste HH with any caste GPM relative to SC HH with that caste GPM. For all castes of GPM no significant difference
3. **Tyranny of the majority:** OBC GPMs represent OBC HHs most, but also represent ST and Other households better than their community GPMs.

Additional controls

- ▶ Roads and drinking water availability (common problem): higher agreement
- ▶ higher wealth and literacy: less agreement
- ▶ political awareness: no significant effect
- ▶ “consensus” among households: increases HH-GPM agreement significantly

Gender

- ▶ Women rank sanitation higher than men
- ▶ More women report sanitation as a top priority
- ▶ Scores for men and women HH-GPM pairs:

GPM			
		Female	Male
HH	Female	7.59	7.56
	Male	7.61	7.58

Conclusion

- ▶ GP Secretary has low agreement with all caste groups
- ▶ Upper castes have different priorities than other castes
- ▶ Do not find evidence of elite capture: Upper castes not represented better by GPMs than SCs are
- ▶ Tyranny of majority:
 - ▶ Highest agreement is between OBC GPMs and (majority) OBC HHs but OBC GPMs represent the ST HHs and Upper caste HHs better than their own GPMs
 - ▶ ST households are best represented by OBC GPMs, significantly better than representation by ST GPMs
- ▶ Suggest decentralisation functional and don't expect capture of untied funds to local governments