UNIVERSITÄT LEIPZIG

Fakultät für Sozialwissenschaften und Philosophie
Institut für Soziologie

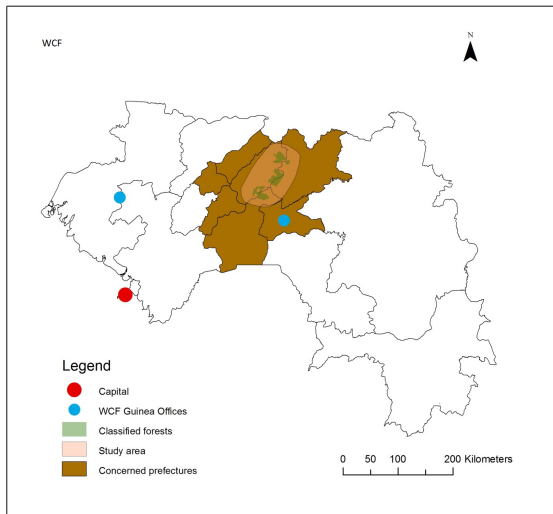# Laboratory Experiment on Fairness and Anonymity in Guinea, West Africa

Lukas Bösch and Roger Berger

lukas.boesch@uni-leipzig.de
berger@sozio.uni-leipzig.de

Venice International University, Rational Choice Sociology: Theory and Empirical Applications, November 2014

WCF: Offset Project Guinea

Studied societies: 39 village communities

- Population: 45 to 867 inhabitants
- Social organization through family (clan), religion (Islam) and community (eldest and chief)
- Each village is economically and socially self-sufficient
- Small scale subsistence economy with few individual opportunities (HDI Guinea: 179)
- Partly economically egalitarian, partly huge economic differences
- Mostly illiterate (literacy rate of adult population: 40%)
- Strong ethnic homogeneity:
  - Malinké, locals, mostly farmers, hunters and gatherers
  - Fulbe, immigrated in 18th century, mostly ranchers

WEIRD people

Critics argue that (empirical) research is too much focused on

- "Western, Educated, Industrialized, Rich, Democratic" (WEIRD) people (Henrich et al. 2010, Keuschnigg and Schikora 2014).
- In contrast, (absolute) non-WEIRD people are hardly investigated.
- Not astonishing, it remains unclear how WEIRD people differ from non-WEIRD people.

  "Rousseau": non-WEIRD people are "naturally" cooperative (e.g. fair).

  "Hobbes": Due to economic scarcity non-WEIRD people can only be fair if it is rational to do so.

Fairness can be modelled as,

1. an individual preference that evolved evolutionary.
2. a self-enforcing, internalized norm.
3. a social norm that is enforced through external sanctions.

- Anonymity should have no effect on fairness in model 1) and 2).
- But in model 3) anonymity should reduce fairness.

Starting Point Experiment

- Each household of the village (coverage: 86%) was inquired with a long interview.

- 1 kg salt was promised as a compensation. Equivalent: Up to several days of work

- ⇒ Reciprocity, no windfall gains, high stakes

Experimental Condition

- Random assignment ($\pi = 0{,}5$) of subjects to treatment and control group
- Manipulation of anonymity condition
- Completely standardized situation in each village
- $\Rightarrow$ Real laboratory experiments in 39 different labs
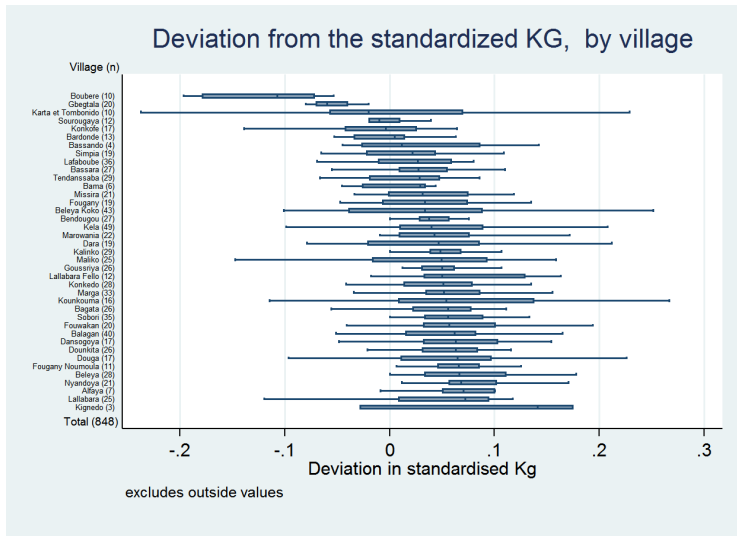
Example: One laboratory

Experimental procedure

- Common knowledge: There is exactly 1 kg of salt for every subject/respondent. As soon as the salt is depleted the experiment is finished.
  $\Rightarrow$ sequential n-person dictator game

- Subjects gauge salt with a measuring jug, well know to them. Then they carry away the salt in black plastic bags.

- Private information about treatment: Experimentator (= interviewer) is present in the lab (= no anonymity) or not present (= anonymity).

Results: Variation of taken salt

Deviation from the standardized KG, by village

Included (control)variables

- Anonymity: 0 or 1, experimental condition
- Kgstart: up to 20 kg, amount of salt when subject enters lab
- Minority: 0 - 0.5, proportion of minority to total population
- Population: 45 - 867, total inhabitants of village
- Sex: female = 1
- Ethnic minority: 0 or 1, subject belongs to ethnic minority
- Local: 0 or 1, born in village
- Age: 3 to 86 years
- Ethnicity: Malinké (0) or Fulbe (1)
- Household size: 1 - 29 people
- Read: 0 or 1, literacy
- Market(integration): 0 - 12.5, monthly trips to market
- Job: 0 - 4, farmer, rancher, hunter, makes money, mixture
- InterAnoMin: interaction term Anonymity $\times$ Minority
- InterAnoPop: interaction term Anonymity $\times$ Population

Regression controlling for village effects

Table: OLS regression with village dummies

Variable	Coefficient	(t)
Anonymity	0.005	(0.43)
Minority	0.139	(0.49)
InterAnoMin	0.192***	(3.01)
Intercept	0.028	(0.47)
N	847	
R^2	0.08	

Conclusion: in-group bias; mechanical solidarity

Anonymity

- has *no* effect on fairness as long as the village is ethnically homogeneous.
- has *an effect* on fairness as soon as the village is ethnically heterogeneous.

Social identity, in group bias:
- fair decisions *inside* the *in-group* are *unconditional*.
- Cooperation with *out-group* is *conditional*.

Durkheim, De la division du travail social:
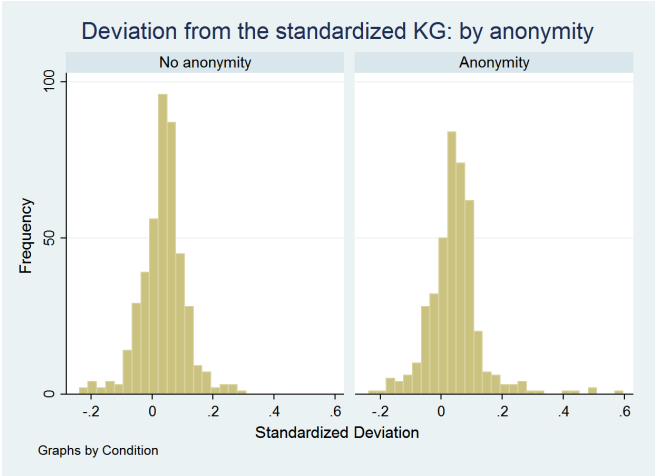- groups with high social integration due to (ethical) *similarity* show *mechanical* solidarity.
- breaking off (ethical) similarity leads to now *organical* solidarity.

Thank you for your attention!

Deviation by anonymity

Deviation from the standardized KG: by anonymity

Complex Model

Source	SS	df	MS
Model	1.65388199	52	.031805423
Residual	7.43860149	588	.012650683
Total	9.09248348	640	.014207005

Number of obs = 641
F(52, 588) = 2.51
Prob > F = 0.0000
R-squared = 0.1819
Adj R-squared = 0.1095
Root MSE = .11248

Standard	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
Anonymity	.0002431	.0120585	0.02	0.984	-.02344	.0239262
Minority	.2694955	.416248	0.65	0.518	-.5480184	1.087009
InterAnoMin	.241748	.0711544	3.40	0.001	.1020003	.3814957
Kgstart	-.0017108	.0007983	-2.14	0.033	-.0032787	-.0001429
Age	.0001988	.0003346	0.59	0.553	-.0004584	.000856
Sex	.0036747	.0205773	0.18	0.858	-.0367392	.0440886
Ethnicity	-.0079632	.0185001	-0.43	0.667	-.0442975	.0283711
minority	-.0135657	.0163653	-0.83	0.407	-.0457073	.0185758
Household	-.0003307	.0012642	-0.26	0.794	-.0028136	.0021521
Population	-.0000592	.000197	-0.30	0.764	-.0004461	.0003276
Local	.0030408	.0130147	0.23	0.815	-.02252	.0286017
Market	.0049433	.0034786	1.42	0.156	-.0018887	.0117754
job	-.0010897	.0031222	-0.35	0.727	-.0072217	.0050423
read	-.0031952	.0114684	-0.28	0.781	-.0257192	.0193288