The Seduction of Applied Conformity

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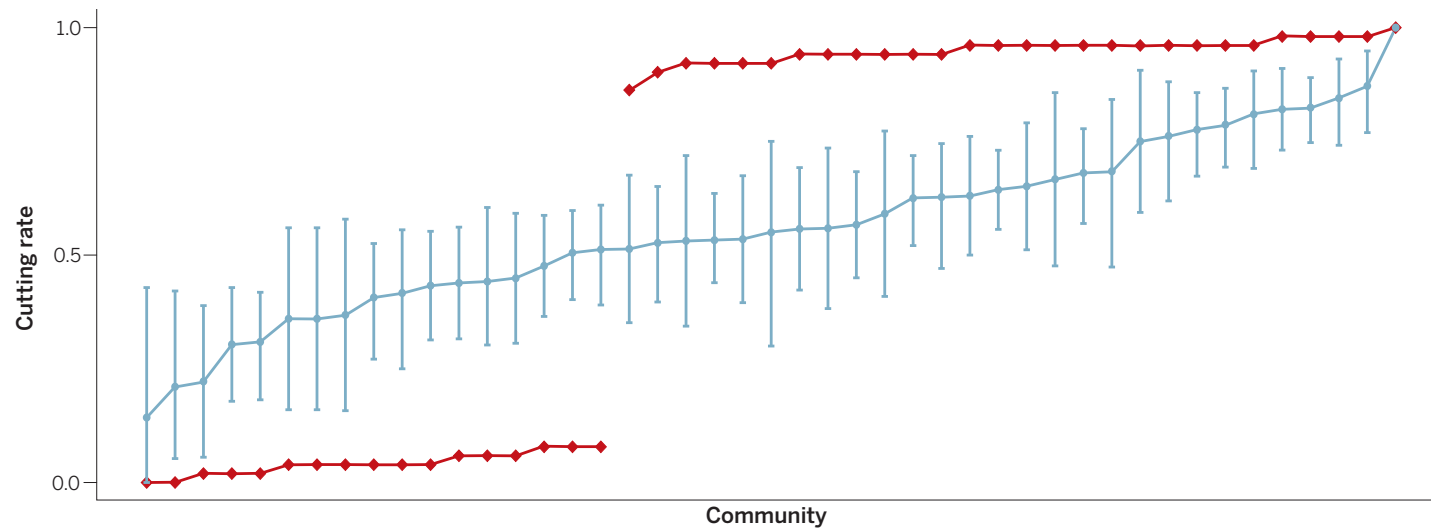
Study 1

The Distribution of Attitudes and Practice

(Efferson *et al.*, 2015, *Science*)

Female genital cutting is not a social coordination norm

New data from Sudan question an influential approach to reducing female genital cutting

By **Charles Efferson,**[1][*][†] **Sonja Vogt,**[1][*][†]
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Cutting rates in Gezira communities. Red diamonds show ordered cutting rates as predicted by the coordination game model (*12*). Blue dots show actual cutting rates across the 45 communities with 95% boot-strapped confidence intervals.

Discontinuities in implicit attitudes?

- We developed an implicit association test for cut versus uncut girls.

- Given neutrality $(D = 0)$, disparate cutting norms imply a bimodal distribution for D.

- Measured implicit attitudes with 2260 adults in the same 45 communities.

- Example stimuli:

Anonymous Laboratory Conditions

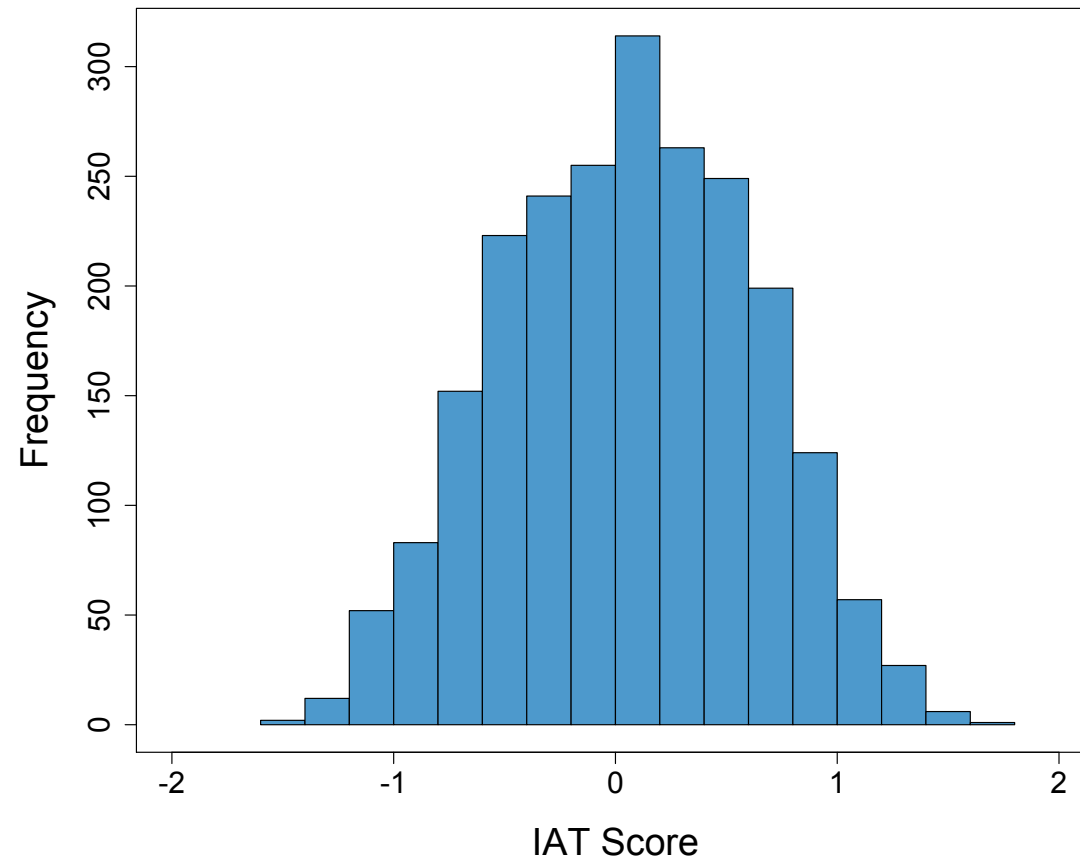## (Chauchard, 2013)

Cutting Rates and Attitudes by Community
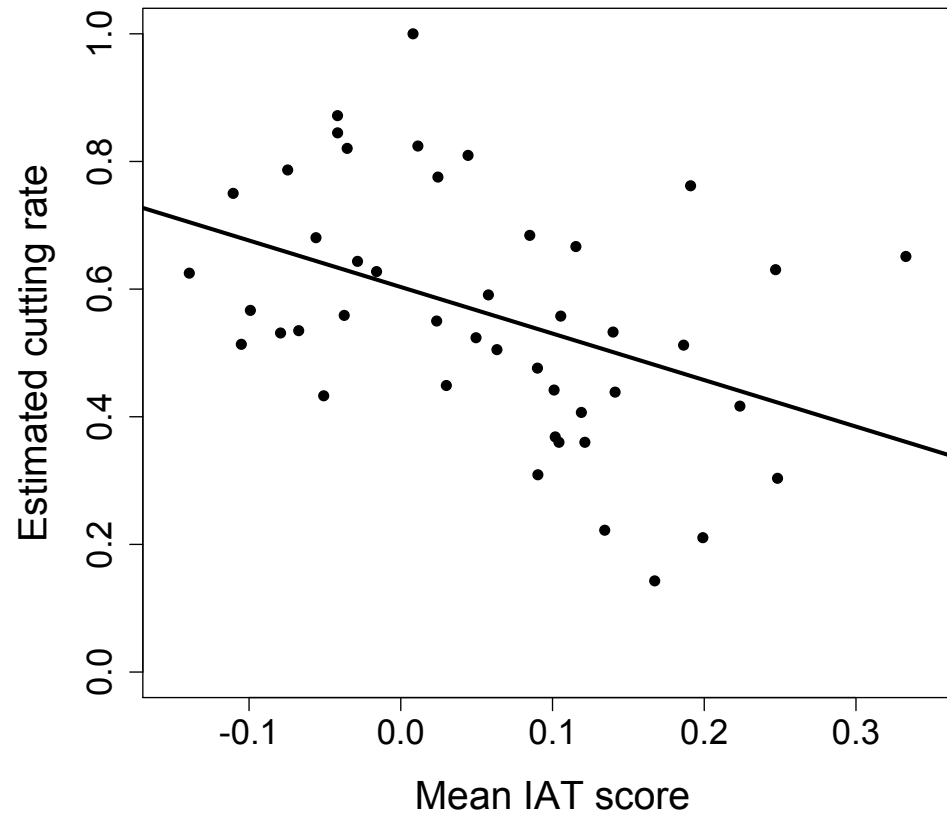
Pearson's correlation, $\rho = -0.423$, with two-dimensional weighted bootstrapping, $p < 0.0008$.

$D > 0 \Rightarrow$ an Uncut/Good Association

Hartigans' dip test of unimodality, $p = 1$. Tests of unimodality by community are also not significant.

Study 2

Dramatising the Tension Within

(Vogt *et al.*, 2016, *Nature*)

Colonial Intrusion and Local Backlash

- If one views cutting as locally pervasive and entrenched (Shell-Duncan and Hernlund, 2000), abandonment implies the need for foreign values and ideals.

- This can accentuate inter-cultural divisions and lead to backlash (Thomas, 2000; Shell-Duncan, 2008; Camilotti, 2015) or misrepresentation (Cloward, 2014).

- Cutting is not necessarily locally pervasive (Efferson *et al.*, 2015; Bellemare *et al.*, 2015).

- **Produced four movies** (90 mins each) that dramatise members of an extended family as they confront each other with divergent views about whether to continue cutting.

  $\Rightarrow$ Tension between cutting and abandonment is **as local as possible**.

The Power of a Good Story

- Entertainment can change attitudes and behaviours (Jensen and Oster, 2009; La Ferrara *et al.*, 2012; Kearney and Levine, 2015; La Ferrara, 2015).

- Entertainment to promote socially beneficial change is often based on social learning theory (Bandura, 1977; Sabido, 1981; La Ferrara, 2015).

- The demand for entertainment is ubiquitous (DellaVigna and La Ferrara, 2015; La Ferrara, 2015), which means ventures can be sustainable and biased participation minimised.

Private Values versus Marriage Prospects

Four movies of 90 minutes about an extended family in contemporary Sudan.

- **Control**: main plot (100%) with heady mix of love, intrigue, deception, and forgiveness.

- **Values**: main plot (70%) plus sub-plot (30%) dramatising discordant views on health, Islam, and femininity.

- **Marriageability**: main plot (70%) plus sub-plot (30%) dramatising discordant views on how cutting affects marriage prospects.

- **Combined**: main plot (70%) plus sub-plot (30%) dramatising discordant views in terms of **values** and **marriageability**.

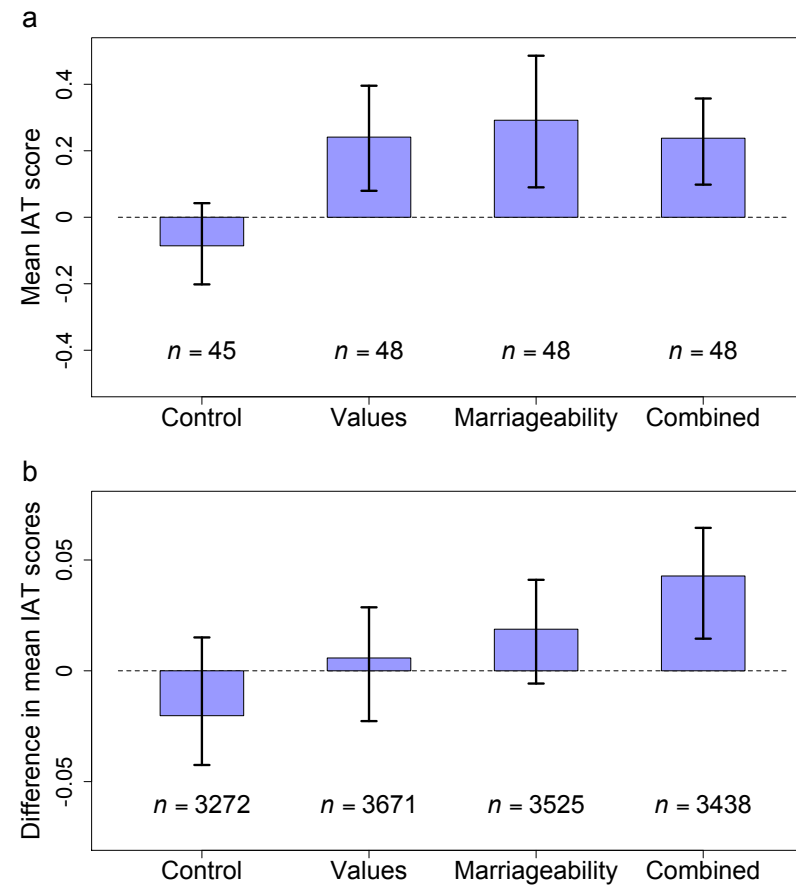# The Yard: Dramatising the Tension Within

Experimental Procedures

- **Experiment 1:** Movies randomly assigned to groups of people within a *community*, and we immediately elicited implicit attitudes after the movies (189 participants, 5 communities).

- **Experiment 2:** Movies randomly assigned to groups of communities within a *region*, and we elicited implicit attitudes one week later (7729 participants, 122 communities).

Changing cultural attitudes towards female genital cutting

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Intention to Treat, Difference-in-Difference

Parameter	Complete cases		Inverse Prob. Weighting		Multiple Imputation	
	Estimate (Std. error)	Estimate (Std. error)	Estimate (Std. error)	Estimate (Std. error)	Estimate (Std. error)	Estimate (Std. error)
Intercept	-0.0544 (0.0492)	-0.101 (0.0703)	-0.0536 (0.0491)	-0.0984 (0.0696)	-0.0556 (0.0517)	-0.0993 (0.0700)
Follow-up	-0.0348 (0.0265)	-0.0463 (0.0268)	-0.0341 (0.0265)	-0.0464 (0.0267)	-0.0377 (0.0281)	-0.0495 (0.0278)
Values	-0.0905 (0.0623)	-0.0610 (0.0542)	-0.0899 (0.0622)	-0.0628 (0.0540)	-0.0890 (0.0636)	-0.0611 (0.0556)
Marriageability	-0.0550 (0.0477)	-0.0500 (0.0413)	-0.0550 (0.0477)	-0.0508 (0.0412)	-0.0526 (0.0498)	-0.0486 (0.0433)
Combined	-0.0201 (0.0532)	-0.00951 (0.0465)	-0.0202 (0.0533)	-0.00923 (0.0464)	-0.0160 (0.0545)	-0.00796 (0.0478)
Follow-up × Values	0.0450 (0.0369)	0.0406 (0.0371)	0.0447 (0.0370)	0.0423 (0.0370)	0.0445 (0.0389)	0.0411 (0.0388)
Follow-up × Marriageability	0.0675* (0.0338)	0.0611 (0.0339)	0.0667 (0.0340)	0.0610 (0.0339)	0.0667 (0.0366)	0.0607 (0.0361)
Follow-up × Combined	0.111** (0.0345)	0.113** (0.0352)	0.111** (0.0346)	0.111** (0.0350)	0.106** (0.0382)	0.110** (0.0376)
Community controls	✓	✓	✓	✓	✓	✓
Individual controls		✓		✓		✓
Num. subjects	7729	7729	7729	7729	7729	7729
Num. observations	13,906	13,906	13,906	13,906	13,906	13,906
Num. imputed	0	0	0	0	1552	1552

Robust standard errors clustered on 88 blocks of communities. $*** \, p \leq 0.001$ $** \, p \in (0.001, 0.01]$ $* \, p \in (0.1, 0.05]$

Intention to Treat, Difference-in-Difference (Controls)

Parameter	Complete cases		Inverse Prob. Weighting		Multiple Imputation	
	Estimate (Std. error)	Estimate (Std. error)	Estimate (Std. error)	Estimate (Std. error)	Estimate (Std. error)	Estimate (Std. error)
Intercept	-0.0544	-0.101	-0.0536	-0.0984	-0.0556	-0.0993
	(0.0492)	(0.0703)	(0.0491)	(0.0696)	(0.0517)	(0.0700)
Woman		0.0938***		0.0933***		0.0936***
		(0.0253)		(0.0253)		(0.0241)
Age		0.00219**		0.00218**		0.00215**
		(0.000818)		(0.000816)		(0.000790)
Spouse born same community		-0.0323		-0.0340		-0.0319
		(0.0218)		(0.0217)		(0.0217)
Nomad		-0.213***		-0.211***		-0.212***
		(0.0231)		(0.0231)		(0.0229)
Ancestors nomads		-0.150***		-0.147***		-0.149***
		(0.0235)		(0.0233)		(0.0229)
Daughters		0.0521*		0.0516*		0.0528*
		(0.0238)		(0.0239)		(0.0241)
Sons		0.0515		0.0526		0.0505
		(0.0277)		(0.0273)		(0.0271)
East Gezira	0.0550	0.0212	0.0548	0.0205	0.0538	0.0196
	(0.0367)	(0.0318)	(0.0367)	(0.0316)	(0.0381)	(0.0335)
High cutting	0.0164	0.0144	0.0159	0.0126	0.0192	0.0172
	(0.0396)	(0.0340)	(0.0394)	(0.0335)	(0.0405)	(0.0353)
High population	0.0604	0.0407	0.0596	0.0402	0.0592	0.0395
	(0.0407)	(0.0342)	(0.0405)	(0.0338)	(0.0415)	(0.0353)

Robust standard errors clustered on 88 blocks of communities.   *** $p \leq 0.001$ ** $p \in (0.001, 0.01]$ * $p \in (0.1, 0.05]$
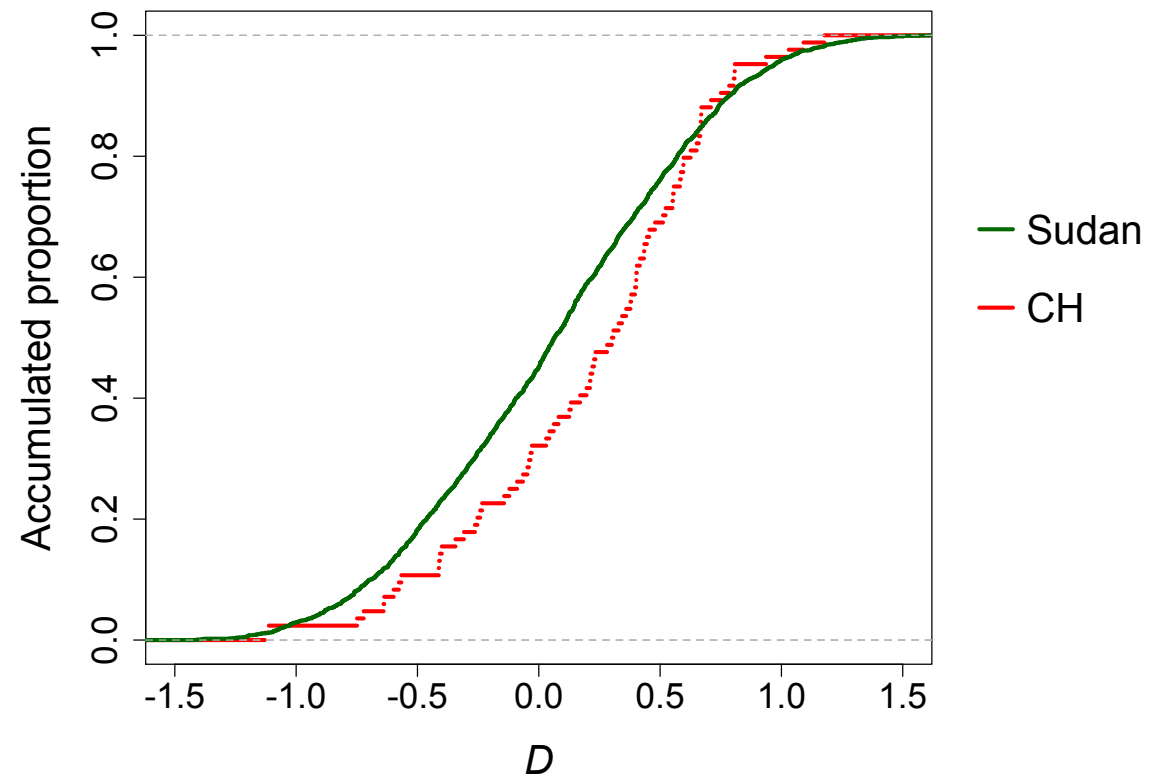
Study 3

Immigrants vs. Countries of Origin

(Vogt *et al.*, 2017, *SSM - Population Health*)

The risk of female genital cutting in Europe: Comparing immigrant attitudes toward uncut girls with attitudes in a practicing country

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Conclusions

- Local heterogeneity in attitudes and practices exists.

- Emphatically, local heterogeneity does **NOT** imply that positive social influence is absent (Hayford, 2005; Howard and Gibson, 2017).

- Local heterogeneity does imply that positive social influence is probably not creating the kind of path-dependent cultural evolutionary dynamics that a policy maker might want to exploit to accelerate behaviour change.

- Local heterogeneity can be used to design effective (entertainment-based) interventions that avoid emphasising inter-cultural conflict.

Acknowledgements

Thank you!

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