

# Gender and Political Representation

## Session 5: Norms and Cultural Legacies

Mirko Wegemann

Universität Münster  
Institut für Politikwissenschaft

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## Two weeks ago...

- conceptualization of representation
- different types of representation
- whether and how descriptive representation matters for gender equality

## Plan for today

1. Conceptualizing social norms
2. Discuss how they work in the wild
3. Learn how they can be transmitted

# Collective Behavior



*Would you stop?*

# Collective Behavior

Our behavior is deeply influenced by considerations of what others think about us.



“We are social animals embedded in thick networks of relations, and what we do has consequences, for us and for others.”  
(Bicchieri 2017, p. 10)

## What social norms are...

“Social norms, like many other social phenomena, are the unplanned result of individuals’ interaction. It has been argued that social norms ought to be understood as a kind of *grammar of social interactions*. Like a grammar, a system of norms specifies what is acceptable and what is not in a society or group. And, analogously to a grammar, it is not the product of human design.” (Bicchieri, Muldoon, and Sontuoso 2011)

## An example: Politicians' traits



(a) Donald Trump



(b) Angela Merkel

Figure: King vs. mother – gender-stereotyped portrayals of political leaders

On gendered stereotypes in politics, how could we conceptualize the *descriptive* and what would be the *injunctive* part of these norms?

## An example: Politicians' traits

Following Bicchieri (2017),

- Social beliefs/norms:
  - empirical: "Political leaders are often strong and assertive, so I should be the same if I enter politics."
  - normative: "People expect political leaders to be strong and assertive, so I should be the same if I enter politics."

## Origins of Gender Roles

In the remainder of the seminar, we'll often start with this scheme to summarize the readings:

- **Research Question:**
- **Main Argument:**
- **Data and Method:**
- **Results:**
- **Implications:**

Let's clarify research question and the general expectation. Then, **group A will dissect the argument** and **group B tries to map the empirical analysis.**

## The argument

Alesina, Giuliano, and Nunn (2013) basically provide an empirical test of the argument brought forward by Boserup (1971). The argument:



(a) Hoe agriculture



(b) Plough agriculture

**Figure:** What's the difference of these types of agriculture with regard to gender?

## The argument

### Hoe agriculture

- independent from physical anatomy
- less dangerous
- requires weeding

### Plough agriculture

- requires a lot of physical strength
- weeding no longer necessary
- animals leading the plough make it more dangerous

## The argument

As a consequence of male-favorable requirements for using the plough, separation of role models:

Public role → men; household role: → women

How does the test fit into the social norms framework?

## The argument

- in agricultural societies: norm compliance may have led to a maximizing of social benefits (= better yield)
- hundreds of years later, it does not fulfill a welfare-maximizing function but it's still there



**Why?**

## The argument

Three possible mechanisms according to Alesina, Giuliano, and Nunn (2013):

1. Institutions erected on top of gender norms that reinforce their initial effect
2. Collective decisions based on traditional gender norms reinforced capital intense industries
3. Conservative gender norms spill over as heuristics for other behaviour

## The argument

**Question by Lara:** *To what extent does the article's argument view cultural development as being too heavily determined by history? Does this conclusion lead to gender inequalities being regarded too much as a given?*

## Data and Method

Most of their analyses are informed by data from the [Ethnographic Atlas](#) by Murdock (1967)

- ethnographic dataset based on anthropological work
- consists of information on more than 1,200 societies (likely missing societies)
- main variables used:
  - dependent variables: share of women in agriculture
  - independent variable: plough use (yes/no; no information on the date of introduction)
  - several control variables, such as geographic conditions, presence of animals in society, economic development and political complexity

...and how do they map the geographical distribution of societies nowadays?

## Data and Method

Use of the **Ethnologue**, a dataset on language use. They match it with the ethnographic dataset via the languages used in a certain society.

- strength: allows for fine-grained spatial analyses
- caveats:
  - what if societies spoke more than one language or vice versa?
  - for later analysis, they mainly focus on country-level but societies were more fine-grained (how do they solve that?)
  - almost no variation in plough use in Western Europe and Sub-Saharan Africa: differences within these regions in gender norms cannot be explained by plough usage

## Data and Method

For present-day implications, they match these data with macro- and micro-level data on gender inequalities

- macro-data: female labor market participation, women in entrepreneurial positions, women in parliament (in years 2000 / 2003)
- individual data: surveys on gender norms (World Value Survey)

# Findings

TABLE I  
TRADITIONAL PLOUGH USE AND FEMALE PARTICIPATION IN PRE-INDUSTRIAL AGRICULTURE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Dependent variable: Traditional participation of females relative to males in the following tasks:						
	Overall agriculture	Land clearance	Soil preparation	Planting	Crop tending	Harvesting	
Mean of dep. var.	3.04	2.83	1.45	2.15	2.86	3.16	3.23
Traditional plough agriculture	-0.883*** (0.225)	-1.136*** (0.240)	-0.434** (0.197)	-1.182*** (0.320)	-1.290*** (0.306)	-1.188*** (0.351)	-0.954*** (0.271)
Ethnographic controls	yes	yes	yes	yes	yes	yes	yes
Observations	660	124	129	124	131	122	131
Adjusted R-squared	0.13	0.19	0.14	0.10	0.09	0.13	0.16
R-squared	0.14	0.23	0.18	0.14	0.13	0.18	0.20

Figure: Effect of Plough Use on Female Labor Participation

What do these numbers mean?

# Findings

TABLE IV  
COUNTRY-LEVEL OLS ESTIMATES WITH HISTORICAL AND CONTEMPORARY CONTROLS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable:							
	Female labor force participation in 2000	Share of firms with female ownership, 2003–2010	Share of political positions held by women in 2000	Average effect size (AES)				
Mean of dep. var.	51.35		35.17		11.83		2.31	
Traditional plough use	-12.401*** (2.964)	-12.930*** (3.537)	-15.241*** (4.060)	-16.587*** (4.960)	-4.821*** (1.782)	-5.129** (2.061)	-0.743*** (0.080)	-0.845*** (0.091)
<i>Historical controls:</i>								
Agricultural suitability	6.073 (3.696)	7.181* (4.175)	0.803 (5.447)	4.322 (6.071)	2.198 (2.605)	1.081 (2.548)	0.262* (0.139)	0.342** (0.139)
Tropical climate	-9.718*** (2.487)	-10.906*** (3.070)	-10.432*** (3.762)	-3.712 (5.711)	-6.086*** (2.094)	-4.169* (2.396)	-0.362*** (0.084)	-0.06 (0.101)
Presence of large animals	-2.015 (5.372)	-2.166 (6.072)	2.707 (9.745)	5.610 (10.417)	-5.718 (3.565)	-4.688 (4.132)	0.005 (0.121)	0.201 (0.146)
Political hierarchies	0.779 (1.515)	1.181 (1.482)	1.128 (1.941)	0.207 (1.878)	0.744 (0.822)	0.656 (0.807)	0.102** (0.040)	0.070* (0.042)
Economic complexity	1.157 (0.793)	1.411* (0.815)	1.693 (1.129)	0.764 (1.382)	0.454 (0.487)	0.333 (0.502)	0.063*** (0.023)	0.027 (0.026)

Figure: Long-Term Effects of Plough Use on Contemporary Gender Inequalities

## Findings

TABLE V  
INDIVIDUAL-LEVEL OLS ESTIMATES USING WVS DATA

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent variable:					
	Female labor force participation, 1995–2007		When jobs are scarce, 1995–2007		Men better political leaders, 1995–2007	
Mean of dep. var.	0.55	0.55	0.46	0.47	2.62	2.64
Traditional plough use	-0.177*** (0.035)	-0.002 (0.031)	0.193*** (0.033)	0.100* (0.059)	0.224*** (0.069)	0.304*** (0.117)
Individual & district controls	yes	yes	yes	yes	yes	yes
Contemporary country controls	yes	n/a	yes	n/a	yes	n/a
Fixed effects	continent	country	continent	country	continent	country
Number of countries	73	78	74	79	50	55
Number of districts	672	698	674	700	453	479
Observations	43,801	47,587	80,303	87,528	64,215	72,152
Adjusted R-squared	0.17	0.27	0.21	0.28	0.19	0.26
R-squared	0.17	0.27	0.21	0.28	0.19	0.26

Figure: Long-Term Effects of Plough Use on Contemporary Gender Inequalities (Individual Level)

What's the issue with regard to causality, Alesina, Giuliano, and Nunn (2013) open up? How do they address it?

## Findings

It might be that areas which differed significantly from others (e.g., higher economic development) were more likely to adopt the plough. These areas might, at the same time, be more economically developed nowadays. They address it in two ways:

- adding a lot of control variables, such as
  - warfare
  - communism
  - religion
- using an instrumental variable approach:
  - assumption: selection into plough usage depending on geographical predispositions (of soil, temperature etc.)
  - effect on long-term macro variables remains consistent

# Mechanism

What's the underlying mechanism? How do they test it?

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What's the underlying mechanism? How do they test it?

*Cultural transmission is the process of acquisition of behaviors, attitudes, or technologies through imprinting, conditioning, imitation, active teaching and learning, or combinations of these.*

(Cavalli-Sforza et al. 1982, p. 19)

## Types of Transmission



## Types of Transmission



## Types of Transmission



*How did these cultural institutions affect transmission of gender norms in the case of the plough?*

# Cultural transmission of gender norms

TABLE IX  
DETERMINANTS OF FEMALE LABOR FORCE PARTICIPATION FOR US CHILDREN OF IMMIGRANTS  
Dependent variable: Labor force participation indicator, 1994–2011

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	All women			Married women					
	Woman's ancestry			Woman's ancestry			Husband's ancestry		
	Father's country	Mother's country	Parents same country	Father's country	Mother's country	Parents same country	Father's country	Mother's country	Parents same country
Mean of dep. var.	0.63	0.63	0.60	0.68	0.69	0.69	0.70	0.71	0.70
Traditional plough use	-0.044*** (0.015)	-0.043** (0.018)	-0.062*** (0.020)	-0.094** (0.046)	-0.118*** (0.043)	-0.136** (0.054)	-0.065*** (0.024)	-0.045** (0.022)	-0.058** (0.024)
Observations	57,138	55,341	32,776	10,206	9,508	6,835	35,393	35,158	23,124
Adjusted R-squared	0.23	0.23	0.25	0.10	0.10	0.11	0.08	0.08	0.08
R-squared	0.23	0.23	0.26	0.11	0.11	0.12	0.09	0.08	0.09

Figure: Female Labour Market Participation following Cultural Plough Use Exposure

## Alternative explanations?

Do any alternative explanations about the *origins of gender norms* come into mind? What would weaken the argument by Alesina, Giuliano, and Nunn (2013)?

## Alternative explanations?

- their study begins in the 17th century (only for a few ethnicities!): if there were any traditional gender roles before, the plough might not be the origin but simply a continuation of traditional gender norms
- agricultural development could have been accompanied by changes in property law that favored men (advent of private property) [they account for that]
- cultural transmission: there is persistency, but for such a long time? what about mutations due to horizontal or oblique transmission?

## Bringing everything together

- **Research Question:** Does the geographical disparity in plough use explain current gender roles?
- **Main Argument:** Plough use fostered traditional household roles.
- **Data and Method:** Combination of anthropological data with current survey questions; multitude of regression analysis
- **Results:** Plough use corresponds to more traditional gender norms, with persistent effects on contemporary behavior
- **Implications:** Societal development can have (un)intended and long-lasting consequences (cultural transmission = powerful)

## ...and how they change

Can these social norms ever change?

**Question by Julius:** *What do the findings imply for (political) interventions countering the attitudes formed by historical conditions.*

**Question by Julika:** *If cultural norms can persist for centuries, what kinds of interventions would be most likely to change gender attitudes today?*

## ...and how they change



What can we learn from Kulkarni (2017), @Johanna, Paul and Théa?

## ...and how they change

Social norms can change...



**Figure 3.2** The steps taken when abandoning a norm.

**Figure:** How norms change (Bicchieri 2017)

## ...and how they change

Belief change is detrimental and can be facilitated by...

- awareness to the norm
- new information (e.g., women are politically active in other countries and have been good leaders)
- presentation of alternatives
- change in external conditions

## What we've learned today...

In our first empirical session, we talked about...

- ...what culture is and how it might matter in politics
- ...an empirical example of cultural transmission and its long-lasting effects on society
- ...how to approach an econ reading
- ...if you want to know more about inheritance norms in India, give [this journalistic piece](#) a read.

## To prepare for next week...






- We'll discuss how institutions contribute to gender inequalities
- Main readings:
  - **Smith DM et al. (2025)** Hidden Majoritarianism and Women's Career Progression in Proportional Representation Systems. *American Political Science Review*, 1–19. ISSN: 0003-0554, 1537-5943. DOI: [10.1017/S0003055425100786](https://doi.org/10.1017/S0003055425100786)
  - **Thesen G and Yildirim TM (2023)** Electoral Systems and Gender Inequality in Political News: Analyzing the News Visibility of Members of Parliament in Norway and the UK. *American Political Science Review* **117** (2), 575–590. ISSN: 0003-0554, 1537-5943. DOI: [10.1017/S0003055422000776](https://doi.org/10.1017/S0003055422000776)
- Complementary reading

## To prepare for next week...





- **Singh SP** (2025) Compulsory Voting Increases Men's Turnout Most. *American Journal of Political Science* **n/a** (n/a). ISSN: 1540-5907. DOI: [10.1111/ajps.12954](https://doi.org/10.1111/ajps.12954)

Thank you for your attention!  
Any further questions?

## Literature

-  **Alesina A, Giuliano P, and Nunn N** (2013) On the Origins of Gender Roles: Women and the Plough\*. *The Quarterly Journal of Economics* **128** (2), 469–530.
-  **Bicchieri C** (2017) Diagnosing Norms. *Norms in the Wild: How to Diagnose, Measure, and Change Social Norms*. Ed. by C Bicchieri. Oxford University Press, 2017, 0.
-  **Bicchieri C, Muldoon R, and Sontuoso A** (2011) Social Norms.
-  **Boserup E** (1971) *Woman's Role in Economic Development*. 2nd impression. London: G. Allen and Unwin, 1971.
-  **Cavalli-Sforza LL et al.** (1982) Theory and Observation in Cultural Transmission. *Science* **218** (4567), 19–27.

## Literature

-  **Kulkarni P (2017)** Can Religious Norms Undermine Effective Property Rights?: Evidence from Inheritance Rights of Widows in Colonial India. *British Journal of Political Science* **47** (3), 479–499.
-  **Murdock GP (1967)** Ethnographic Atlas: A Summary. *Ethnology* **6** (2), 109–236. JSTOR: [3772751](https://www.jstor.org/stable/3772751).
-  **Singh SP (2025)** Compulsory Voting Increases Men's Turnout Most. *American Journal of Political Science* **n/a** (n/a).
-  **Smith DM et al. (2025)** Hidden Majoritarianism and Women's Career Progression in Proportional Representation Systems. *American Political Science Review*, 1–19.

# Literature



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