Cultural Distance and Conflict-Related Sexual Violence

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- Long-lasting consequences for victims, their families and communities (Ba and Bhopal, 2017)
- Some conflict actors perpetrate sexual violence, while others do not

This Paper

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  - Relate the socioeconomic role of men and women in ancestral societies to notions of gender (in)equality
  - Construct and assign a *Gender Inequality Index* (eGII) to each ethnic group
  - Assess whether perpetrators of sexual violence are more gender-unequal
  - Explore whether the *cultural distance* in gender norms between ethnic armed actors explains sexual violence

Preview of Results

- More gender-unequal actors perpetrate more sexual violence

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- Conflict-related sexual violence is driven by a *clash of conceptions* on the appropriate role of men and women in society
- These patterns do not explain general violence
- Other cultural distances not related to gender do not explain sexual violence

Data: Sources

1. **SVAC dataset**
   - 33 *ethnic* civil conflicts in 27 African countries (1989-2009) rebels vs government forces
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3. **Murdock Ethnographic Altas (EA)**: add information on ancestral ethnic characteristics

Ethnic Gender Inequality Index

- We relate ancestral ethnic characteristics to anthropological notions of gender (in)equality
  - Descent, residence, and family arrangements
  - Modes of subsistence

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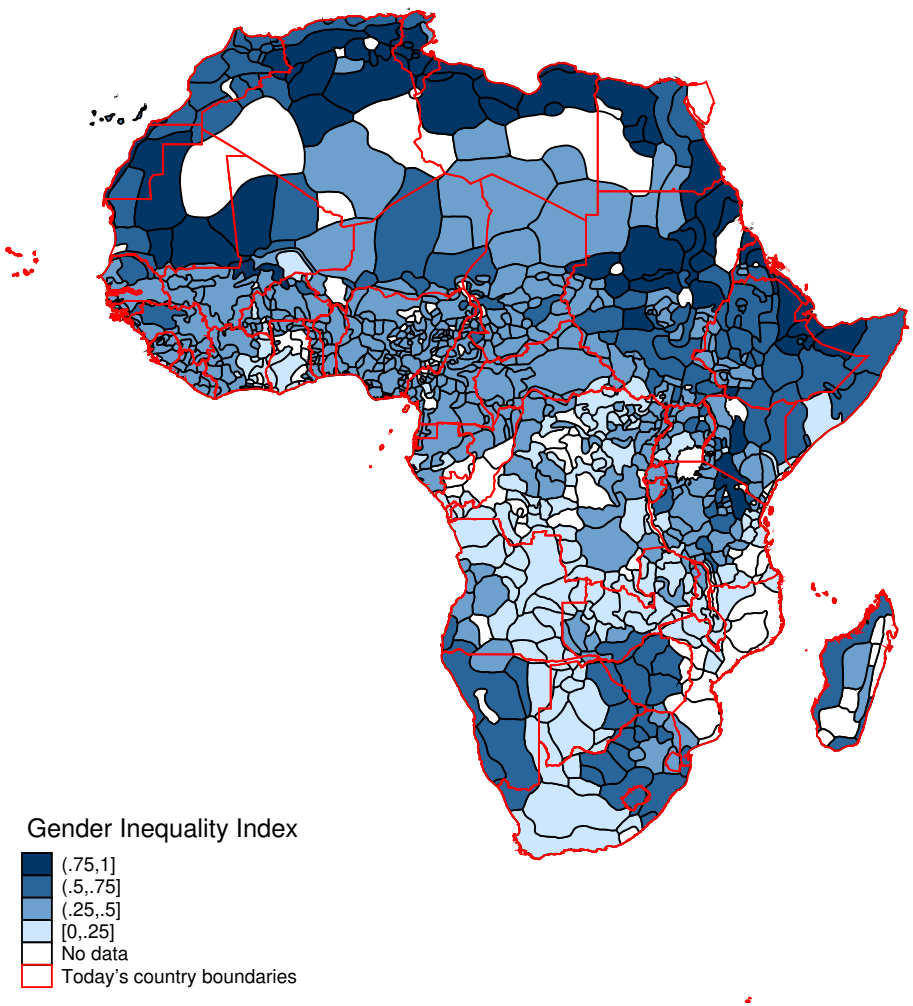
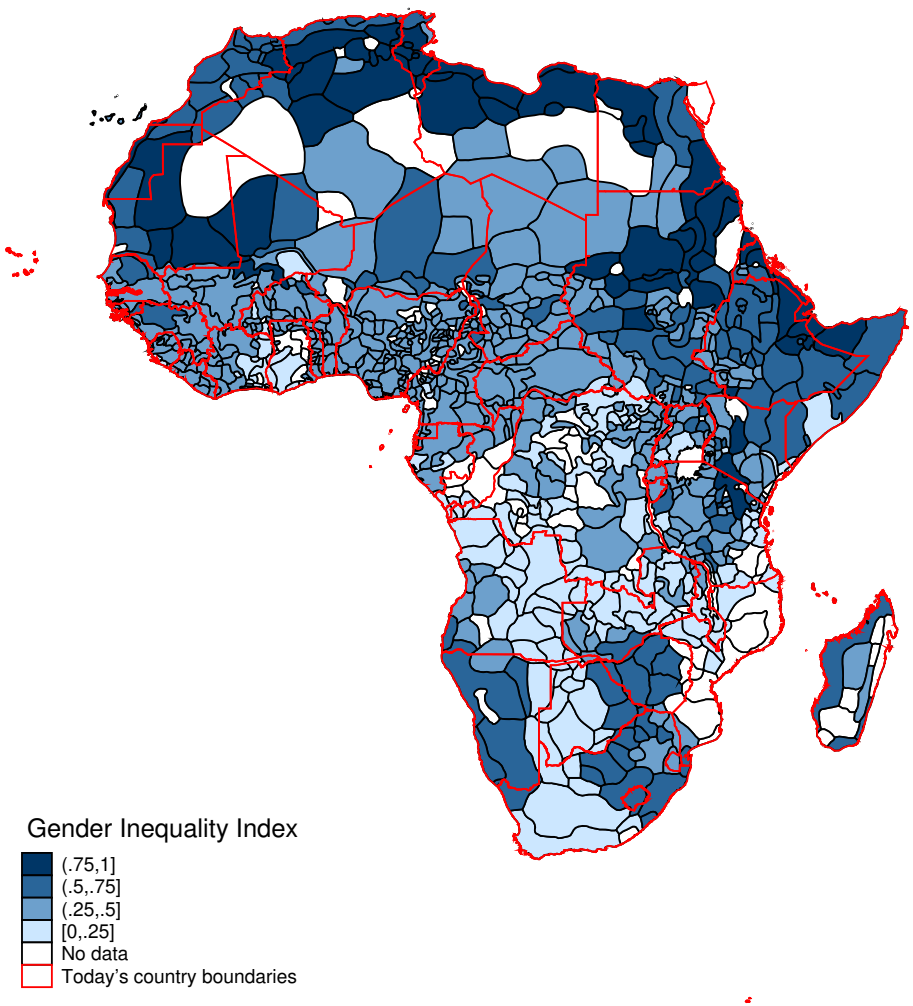
- **Principal Component Analysis**: 9 variables ▸ loadings
  1. *Traits related to more gender inequality*
     - ★ e.g., use of the plough (Alesina et al. 2013), dependence on pastoralism (Becker 2019)
  2. *Traits related to less gender inequality*
     - ★ e.g., matrilineality (Martin and Voorhies 1975; Lowes 2018)

Ethnic Gender Inequality Index



Ethnic Gender Inequality Index



- The index correlates with contemporary measures of gender (in)equality:
  - female employment, son preference, attitudes towards gender and wife beating, sexual intimate partner violence ▸ Table

Research Questions

Are gender unequal actors more likely to perpetrate sexual violence in conflict?

Is the prevalence and intensity of war-related sexual violence explained by the *cultural distance* in gender norms of the combatants?

Gender Inequality and Sexual Violence

$$\text{SVAC}_{ict} = \lambda \text{eGII}_i + \eta_c + \phi_t + \omega_c t + \epsilon_{ict}$$

- SVAC_{ict}: sexual violence perpetrated by actor i in conflict c in year t
- eGII_i: ethnic gender inequality index of actor i
- η_c: conflict fixed effect $\Rightarrow$ time-invariant characteristics
- ϕ_t: year fixed effect $\Rightarrow$ time-specific shocks in Africa
- $\omega_c t$: conflict-specific time trend
- Standard errors clustered at the actor's level

Gender Inequality and Sexual Violence

	Sexual Violence in Conflict (0-3)		
	(1)	(2)	(3)
eGII ($\hat{\lambda}$)	1.83***	1.87***	1.55**
	(0.505)	(0.564)	(0.715)
Mean dep. var.	0.62	0.62	0.62
Conflict fixed effect	yes	yes	yes
Year fixed effect	yes	yes	yes
Conflict-specific time trend		yes	yes
Victim's eGII			yes
Adjusted R^2	0.307	0.377	0.376
Observations	900	900	893
Clusters	128	128	127

Standard errors clustered at the actor's level in parentheses.*** p<0.01, ** p<0.05, * p<0.1. Magnitude: one standard deviation increase in the eGII increases SVAC by 0.45 standard deviations (column (2)).

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Testing the Cultural Clash (I)

- We exploit the *dyadic and bidirectional* structure of our dataset

country	year	conflict	perpetrator	victim	perpetrator's ethn.	victim's ethnicity	svac
Chad	1994	288	Gvt.of Chad	CSNPD	Zaghawa, Bideyat	Sara	2
Chad	1994	288	CSNPD	Gvt.of Chad	Sara	Zaghawa, Bideyat	0

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- Absolute distance in gender norms between perpetrator (p) and victim (v)

$$\text{eGII}_{pv}^{Dist} = |\text{eGII}_p - \text{eGII}_v|$$

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$$\text{eGII}_{pv}^{Dist} = |\text{eGII}_p - \text{eGII}_v|$$

- Specification in the spirit of a gravity approach
(Grosjean 2011, Serafinelli and Tabellini 2017)

$$\text{SVAC}_{pvct} = \gamma \text{eGII}_{pv}^{Dist} + P_p + \eta_c + \phi_t + \omega_c t + \epsilon_{pvct}$$

  - **Perpetrator FE** (P_p) $\Rightarrow$ time-invariant characteristics
(e.g., aggressiveness, other ethnic traits, whether it is a state force or rebel group, etc.)
  - Standard errors clustered at the dyad level

Testing the Cultural Clash (II)

- Role of two distinct cultural clashes:
  1. Perpetrator *more gender unequal* than the victim

$$\text{eGII}_{pv}^{Dist+} = \begin{cases} |\text{eGII}_p - \text{eGII}_v| & \text{if } \text{eGII}_p > \text{eGII}_v \\ 0 & \text{otherwise.} \end{cases}$$

  2. Perpetrator *less gender unequal* than the victim

$$\text{eGII}_{pv}^{Dist-} = \begin{cases} |\text{eGII}_p - \text{eGII}_v| & \text{if } \text{eGII}_p < \text{eGII}_v \\ 0 & \text{otherwise.} \end{cases}$$

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- Two additional specifications:

$$\text{SVAC}_{pvct} = \beta \text{eGII}_p + \gamma_1 \text{eGII}_{pv}^{Dist+} + \gamma_2 \text{eGII}_{pv}^{Dist-} + \eta_c + \phi_t + \omega_c t + \epsilon_{pvct}$$

$$\text{SVAC}_{pvct} = \gamma_1 \text{eGII}_{pv}^{Dist+} + \gamma_2 \text{eGII}_{pv}^{Dist-} + P_p + \eta_c + \phi_t + \omega_c t + \epsilon_{pvct}$$

Testing the Cultural Clash: Results

	Sexual Violence in Conflict (0-3)
	(1)
Absolute distance ($\hat{\gamma}$)	1.53***
	(0.518)
Conflict and Year FE	yes
Conflict-Specific time trends	yes
Perpetrator FE	yes
Mean Dep. Var	0.62
Observations	623
Adjusted R-squared	0.60

Standard errors clustered at the dyad level in parentheses (76 dyads). Magnitude (column 1): one standard deviation increase in *Absolute Distance* increases SVAC by 0.2 standard deviations. Magnitude (column 5): one standard deviation increase in *Perpetrator more unequal* increases SVAC by 0.2 standard deviations. *** p<0.01, ** p<0.05, * p<0.1.

Testing the Cultural Clash: Results

	Sexual Violence in Conflict (0-3)	
	(1)	(2)
Absolute distance ($\hat{\gamma}$)	1.53***	
	(0.518)	
Perpetrator's Inequality Index ($\hat{\beta}$)		0.58
		(0.629)
Perpetrator More Unequal ($\hat{\gamma_1}$)		1.44*
		(0.814)
Conflict and Year FE	yes	yes
Conflict-Specific time trends	yes	yes
Perpetrator FE	yes	
Mean Dep. Var	0.62	0.62
Observations	623	643
Adjusted R-squared	0.60	0.60

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Perpetrator's Inequality Index ($\hat{\beta}$)		0.58	2.05**
		(0.629)	(0.957)
Perpetrator More Unequal ($\hat{\gamma_1}$)		1.44*	
		(0.814)	
Perpetrator Less Unequal ($\hat{\gamma_2}$)			0.20
			(1.586)
Conflict and Year FE	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes
Perpetrator FE	yes		
Mean Dep. Var	0.62	0.62	0.62
Observations	623	643	643
Adjusted R-squared	0.60	0.60	0.59

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Testing the Cultural Clash: Results

	Sexual Violence in Conflict (0-3)			
	(1)	(2)	(3)	(4)
Absolute distance ($\hat{\gamma}$)	1.53***			
	(0.518)			
Perpetrator's Inequality Index ($\hat{\beta}$)		0.58	2.05**	1.13
		(0.629)	(0.957)	(0.997)
Perpetrator More Unequal ($\hat{\gamma_1}$)		1.44*		1.51*
		(0.814)		(0.811)
Perpetrator Less Unequal ($\hat{\gamma_2}$)			0.20	0.64
			(1.586)	(0.919)
Conflict and Year FE	yes	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes	yes
Perpetrator FE	yes			
Mean Dep. Var	0.62	0.62	0.62	0.62
Observations	623	643	643	643
Adjusted R-squared	0.60	0.60	0.59	0.60

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Testing the Cultural Clash: Results

	Sexual Violence in Conflict (0-3)				
	(1)	(2)	(3)	(4)	(5)
Absolute distance ($\hat{\gamma}$)	1.53***				
	(0.518)				
Perpetrator's Inequality Index ($\hat{\beta}$)		0.58	2.05**	1.13	
		(0.629)	(0.957)	(0.997)	
Perpetrator More Unequal ($\hat{\gamma_1}$)		1.44*		1.51*	1.53***
		(0.814)		(0.811)	(0.503)
Perpetrator Less Unequal ($\hat{\gamma_2}$)			0.20	0.64	1.55
			(1.586)	(0.919)	(1.214)
Conflict and Year FE	yes	yes	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes	yes	yes
Perpetrator FE	yes				yes
Mean Dep. Var	0.62	0.62	0.62	0.62	0.62
Observations	623	643	643	643	623
Adjusted R-squared	0.60	0.60	0.59	0.60	0.74

Standard errors clustered at the dyad level in parentheses (76 dyads). Magnitude (column 1): one standard deviation increase in *Absolute Distance* increases SVAC by 0.2 standard deviations. Magnitude (column 5): one standard deviation increase in *Perpetrator more unequal* increases SVAC by 0.2 standard deviations. *** p<0.01, ** p<0.05, * p<0.1.

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Perpetrator Less Unequal ($\hat{\gamma_2}$)			0.20	0.64	1.55	1.56
			(1.586)	(0.919)	(1.214)	(1.209)
Linguistic distance						-0.02
						0.049
Conflict and Year FE	yes	yes	yes	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes	yes	yes	yes
Perpetrator FE	yes				yes	yes
Mean Dep. Var	0.62	0.62	0.62	0.62	0.62	0.62
Observations	623	643	643	643	623	623
Adjusted R-squared	0.60	0.60	0.59	0.60	0.74	0.59

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Testing the Cultural Clash: Results

	Sexual Violence in Conflict (0-3)						Killings (0-3)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Absolute distance ($\hat{\gamma}$)	1.53***						-0.18
	(0.518)						(0.856)
Perpetrator's Inequality Index ($\hat{\beta}$)		0.58	2.05**	1.13			
		(0.629)	(0.957)	(0.997)			
Perpetrator More Unequal ($\hat{\gamma_1}$)		1.44*		1.51*	1.53***	1.53***	
		(0.814)		(0.811)	(0.503)	(0.500)	
Perpetrator Less Unequal ($\hat{\gamma_2}$)			0.20	0.64	1.55	1.56	
			(1.586)	(0.919)	(1.214)	(1.209)	
Linguistic distance						-0.02	
						0.049	
Conflict and Year FE	yes	yes	yes	yes	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes	yes	yes	yes	yes
Perpetrator FE	yes				yes	yes	yes
Mean Dep. Var	0.62	0.62	0.62	0.62	0.62	0.62	1.07
Observations	623	643	643	643	623	623	623
Adjusted R-squared	0.60	0.60	0.59	0.60	0.74	0.59	0.32

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Interpretation of Results

Identity-based explanation (Akerlof and Kranton 2000)

- Perpetrators that face a more *gender-equal* opponent
  - might feel threatened by the relatively *better* position of women in the opponents' society $\Rightarrow$ resort to SV to alleviate the negative feelings experienced with this encounter

Interpretation of Results

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- Perpetrators that face a more *gender-equal* opponent
  - might feel threatened by the relatively *better* position of women in the opponents' society $\Rightarrow$ resort to SV to alleviate the negative feelings experienced with this encounter
- Perpetrators that face a more *gender-unequal* opponent
  - might not feel threatened by the relatively *worse* position of women in the opponents' society $\Rightarrow$ less likely to respond with SV to the distance in cultural norms

▸ Rule out alternative explanations

Conclusions

Gender unequal actors are more likely to perpetrate sexual violence in conflict

Conflict-related sexual violence is driven by a *clash of conceptions* on the appropriate role of men and women in society

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Contributions

- Dyadic dataset with information on all actors involved in a conflict
- *Intensive margin of violence*: cultural distance can explain how violence unfolds once conflict takes place
- Novel explanation for sexual violence in armed conflict
- New Gender Inequality Index based on ethnic traits
  (worldwide version coming soon)

Appendix

- Data
  - Definitions: armed conflict, ethnic-relevant conflict, ethnic group, war-related sexual violence
  - More on the EPR dataset and the Murdock Ethnographic Atlas
  - Dataset construction
  - Sexual violence: distribution across ethnic groups
  - Gender Inequality Index: variables, loadings, distribution, validation
- Robustness
  - Gender inequality and sexual violence
    - ⋆ single ethnic traits, unweighted eGII, restricted eGII, other fixed effects, no temporal variation
  - Cultural clash
    - ⋆ unweighted eGII, restricted eGII, controlling for victim's characteristics, alternative fixed effects, no temporal variation, alternative measure of the eGII for government forces, two-way clustering of standard errors
- Additional evidence
  - General violence
  - Other cultural distances: linguistic and religious

Definition of Armed Conflict

any contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths

Gleditsch et al. (2002)

outline

Definition of Ethnic-Relevant Conflict

armed conflicts between the government of a state and one or more internal opposition group(s) that cause at least 25 battle-related deaths within a year and in which armed groups (i) explicitly pursue ethno-nationalist aims, motivations, and interests; and (ii) recruit fighters and forge alliances on the basis of ethnic affiliation

Gleditsch et al. (2002), Wimmer et al. (2009)

- 76% of African conflicts between 1989 and 2009 were ethnic

▸ outline

Definition of Ethnic Group

an ethnic group is an identity group that defines itself or is defined by others along linguistic, religious or racial characteristics

Vogt et al. (2015)

▸ outline

Definition of War-Related Sexual Violence

rape, sexual slavery, forced prostitution, forced pregnancy, forced sterilization, forced abortion

International Criminal Court (2000)

sexual mutilation and sexual torture

Wood (2009)

- 0: no sexual violence
- 1: isolated occurrence of SV and reported victims or incidents <25
- 2: widespread and common SV, victims or incidents 25-999
- 3: massive, innumerable or systematic SV, victims or incidents >1,000

- Annual reports from **Amnesty International, Human Rights Watch, and the US State Department**

▸ outline

Data: Ethnic Power Relations (EPR)

- We focus on **ethnic civil conflicts**
- Side A is a government, side B a rebel group
- It allows us to **assign to each actor an ethnic identity**
- It contains information on:
  - ethnic group's access to executive *government* power
  - ethnic group's involvement in civil war as part of a *rebel organization*

▸ more

▸ example ▸ outline

Data: Ethnographic Atlas

- Information on **ethnic characteristics** prior to colonial contact and industrialization
- Merged using concordance data by Michalopoulos and Papaioannou (2016) $\rightarrow$ only for Africa
- For 13 of the 15 EPR ethnic groups that remained unmerged, we relied on a variety of sources: Joshua Project, Ethnologue dataset, Wikipedia, geo-location of ethnic settlements provided by EPR, etc.
- In some cases, a conflict-actor is associated to multiple EA groups

▸ more

▸ outline

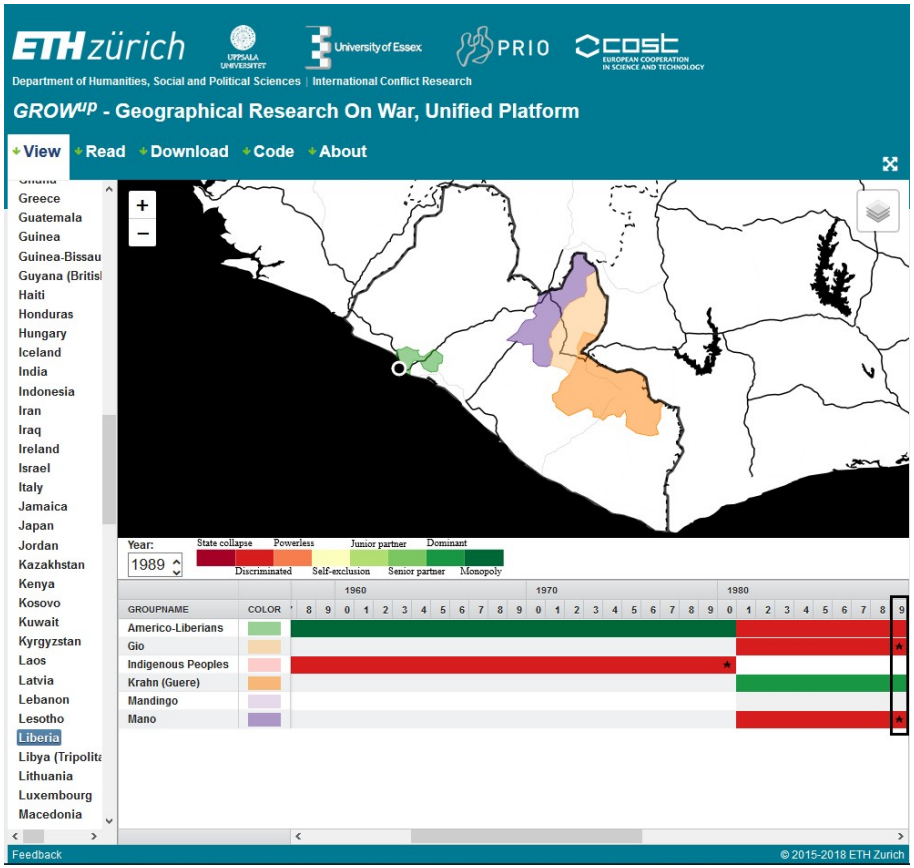
EPR Information on Government Power

- *Monopolist* or *Dominant*: if an ethnic group holds exclusive or almost exclusive power in the government
- *Senior* or *Junior Partners*: when power is formally or informally shared by different groups, depending on their relative position in the government
- *Discriminated* or *Powerless*: groups that do not detain any power
- *Self-Excluded*: groups controlling a particular territory in the state which they have declared independent
- *Irrelevant*
- *State Collapse*

back to EPR

Example of Dataset Construction

- 1989, Liberia. Conflict between the government and the rebel group NPFL (National Patriotic Front of Liberia)



- **side A**: Krahn (Guere); **side B**: Gio and Mano
- Krahn (Guere) $\rightarrow$ *Dominant*
- Americo-Liberians, Gio and Mano $\rightarrow$ *Discriminated*; only Gio and Mano were involved in the conflict as rebels (marked by a star)
- we confirm the validity of each match by consulting the correspondent chapter in the EPR Atlas and other narratives ▸ cite

▸ outline

Merge with EA ethnic groups

- A conflict actor is associated to multiple EA groups either because:
  1. side A, side B or both are represented by multiple EPR groups
  2. an EPR group corresponds to multiple groups in the EA
  3. both

back to EA

Confirming the Validity of Matches

*[...] Doe's coup brought an end to the Americo-Liberian dominance. [...] Doe's rule relied heavily on his own **Krahn** group, which occupied the states key positions. They soon dominated political and military life in Liberia. Thus, the **Krahn** are coded as "dominant" during Doe's regime. There is also widespread discrimination and state violence against the **Gio** and **Mano** ethnic groups (where opposition against Doe was widespread) [...] Thus, these groups are also coded as "discriminated".*

EPR Atlas on 1989 Liberia Conflict

*most NPFL fighters were originally drawn from the **Gio** and **Mano** ethnic groups of northern Liberia who were persecuted under Doe's regime.*

Wikipedia (https://en.wikipedia.org/wiki/National Patriotic Front of Liberia)

▸ back to example

Gender Inequality Index (I)

Traits associated with more gender equality

- **Matrilineality.** Women are key for determining descent and have support from their kin network (Schneider and Gough 1961; Lowes 2018)
- **Stem families.** Coresidence of the wife with the mother-in-law. Women have a productive role and participate in family subsistence (Sasaki 2002; Tur-Prats 2019)
- **Dependence on agriculture.** In Africa, subsistence activity with high female participation (Murdock 1967). Associated with lower prevalence of intimate partner violence in Africa (Alesina et al. 2020)

▸ outline

Gender Inequality Index (II)

Traits associated with less gender equality

- **Use of the plough.** Agrarian societies that relied on the plough in the past exhibit today more gender inequality (Alesina et al. 2013)
- **Patrilocality.** After marriage, the couple moves near the husband's kin group; linked to women's low economic participation (Murdock 1949, Korotayev 2003).
- **Dependence on pastoralism.** Frequent and extended male absence, source of restrictive social norms towards women's sexuality due to paternity uncertainty (Becker 2019).
- **Dependence on animal husbandry.** Subsistence activity predominantly carried out by men (Murdock 1967). Associated with higher prevalence of intimate partner violence in Africa (Alesina et al. 2020)
- **Dependence on hunting and gathering.** In hunter-gatherer societies, men exerted control over animal protein, a scarce and hard to acquire resource (Friedl 1978)

▸ outline

Gender Inequality Index (III)

Traits not included in the PCA: ambiguous in the literature

- **brideprice** → Alesina et al. 2020: negative trait; Ashraf et al. (*forth.*): positive trait (Indonesia and Zambia)
- **polygamy** → Alesina et al. 2020: positive trait; Doepke et al. 2012: negatively correlated with measures of female empowerment
- **dependence on fishing** → Alesina et al. 2018: negative trait; BenYishay et al. 2017: positive trait (Solomon Islands)

▸ outline

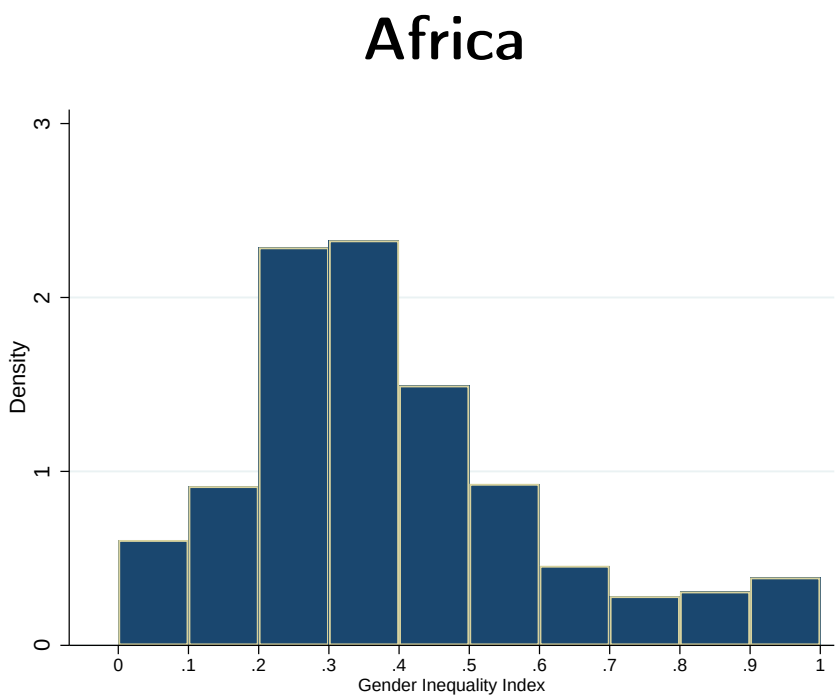
Gender Inequality Index: Loadings

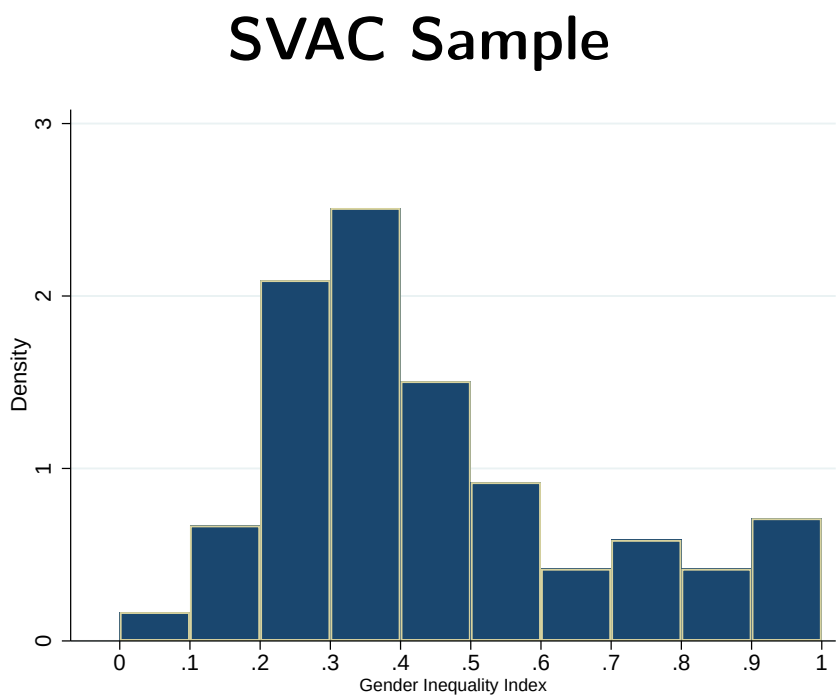
Variables	*Loading*
Gender-Equal Traits	
Matrilineal	-0.26
Dependence on agriculture	-0.27
Gender-Unequal Traits	
Patrilocal	0.30
Dependence on pastoralism	0.55
Use of the plough	0.29
Dependence on animal husbandry	0.55
Ambiguous Traits	
Stem	0.01
Dependence on gathering	-0.15
Dependence on hunting	-0.26
Kaiser-Meyer-Olkin measure of sampling adequacy	0.58

First PC $\rightarrow$ explains 32% of the common variance

▸ back to map ▸ outline

Gender Inequality Index: Distribution





▸ outline

eGII and Contemporary Gender Inequality

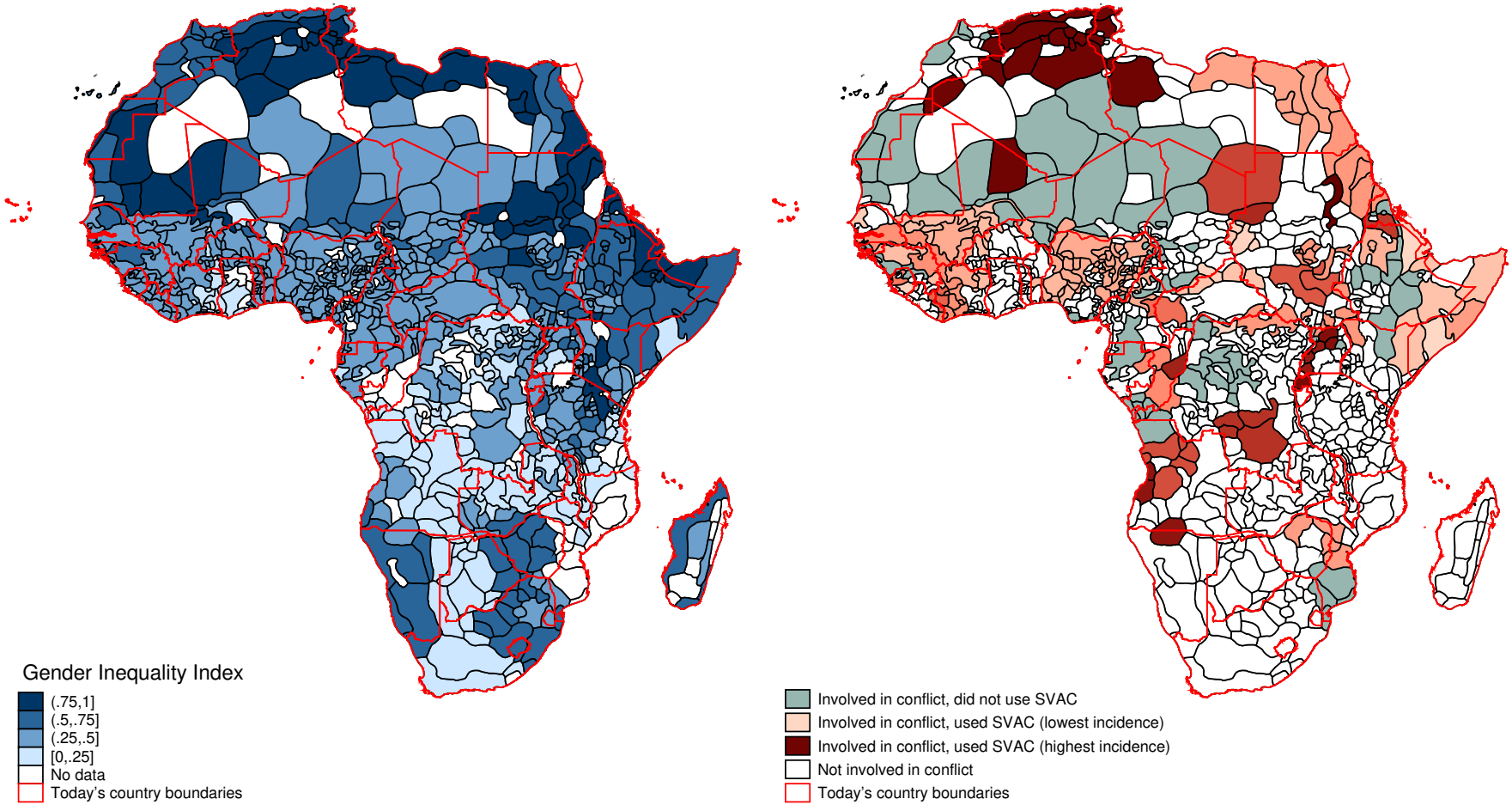
	Female employment	Son preference	Intimate partner violence		Justifies beating	Men better leaders	Educating boys priority
			Physical	Sexual			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
eGII	-0.200***	0.063***	-0.002	0.078**	0.141**	0.109***	0.118**
	(0.057)	(0.012)	(0.025)	(0.032)	(0.056)	(0.029)	(0.046)
Mean dep. var.	0.580	0.032	0.064	0.100	0.534	0.301	0.184
Adj R-squared	0.046	0.157	0.042	0.041	0.094	0.050	0.040
Country FE	yes	yes	yes	yes	yes	yes	yes
Year/Round FE	yes	yes	yes	yes	yes	yes	yes
Observations	571,184	428,718	113,192	69,706	481,728	141,567	36,971
Clusters	618	587	458	348	564	770	473
Countries	24	24	19	15	22	34	32
Years/Rounds	27	25	15	11	20	5	1
Source	DHS	DHS	DHS	DHS	DHS	AfroBR	AfroBR

Notes: Dependent variables: column (1): female employment; column (2): son preference, defined as (ideal number of boys - ideal number of girls)/(total number of wanted children); column (3) wife beating is justified in at least one of the following instances: she goes out without telling him, she neglects the children, she argues with him, she refuses to have sex with him, she burns the food; column (4) Faced at least one of the following severe physical violence events in the past 12 months: been kicked or dragged; been strangled; been threatened with knife/gun or other weapon; (5) Faced at least one of the following sexual violence events in the past 12 months: physically forced into unwanted sex; forced into other unwanted sexual acts; physically forced to perform sexual acts she didn't want to. column (6): agreeing with the statement "Men make better political leaders than women, and should be elected rather than women" as opposed to "Women should have the same chance of being elected to political office as men"; column (7): agreeing with the statement "If funds for schooling are limited, a boy should always receive an education in school before a girl" as opposed to "If funds for schooling are limited, a family should send the child with the greatest ability to learn"; Explanatory variable: respondent's ethnic group's eGII. Standard errors are clustered at the ethnic group's level. *** (**) (*) indicate significance at the 1% (5%) (10%) level.

▸ back to map

▸ outline

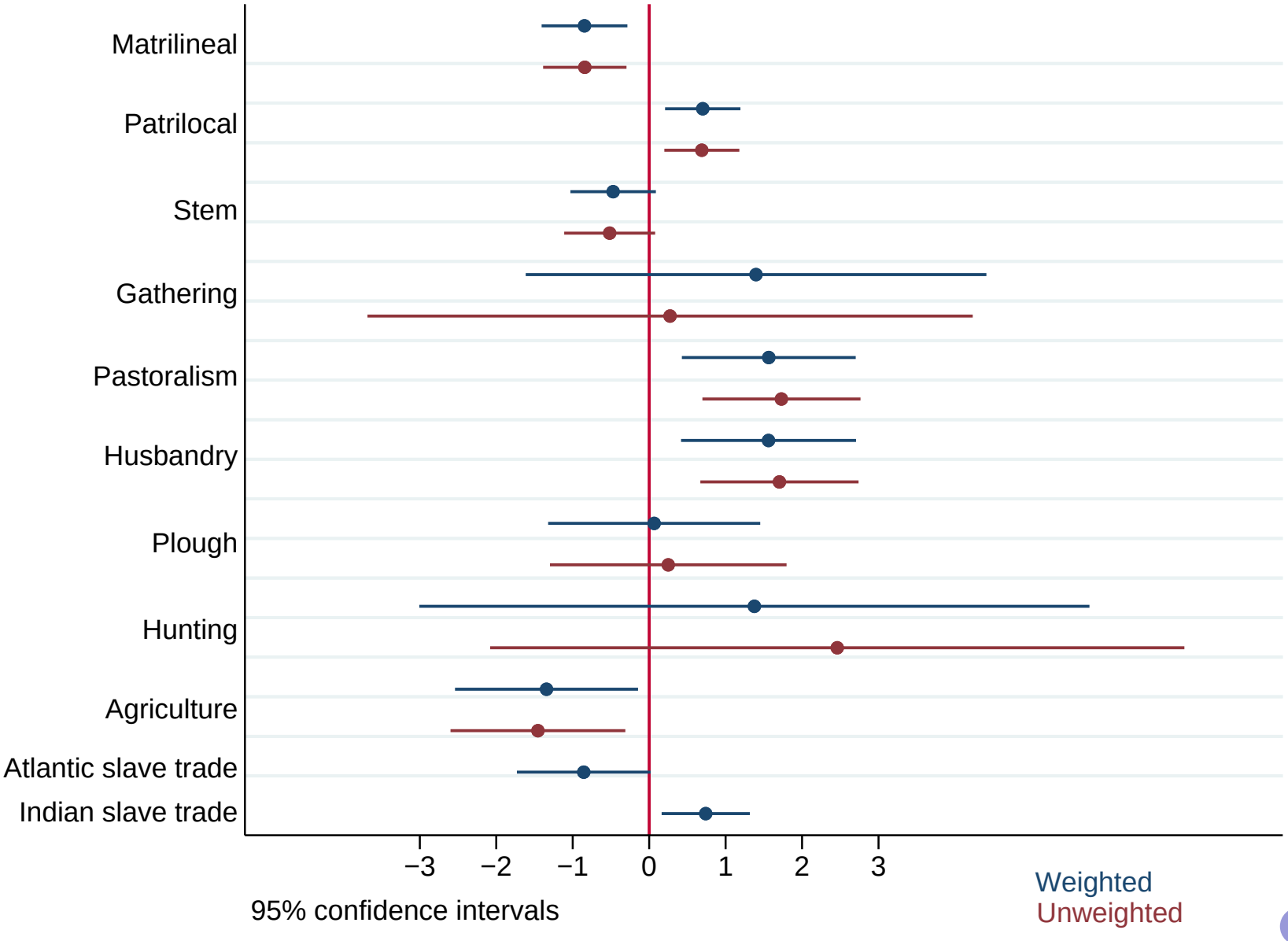
Distribution of the eGII across Africa and incidence of sexual violence in armed conflict



Left: Distribution of the eGII across Murdock's ethnicities in Africa and contemporary country borders. Right: Total incidence of the use of sexual violence in armed conflict by Murdock ethnicities from 1989 to 2009, measured through an index ranging between 0 and 1.

▸ outline

Results: Perpetrator's Own Ethnic Characteristics



▸ outline

Gender Inequality Index, Unweighted eGII

	Sexual Violence in Conflict (0-3)		
	(1)	(2)	(3)
eGII (unweighted)	1.84***	1.90***	1.54**
	(0.457)	(0.507)	(0.635)
Conflict fixed effect	yes	yes	yes
Year fixed effect	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes
Victim's characteristic			yes
Mean Dep. Var	0.62	0.62	0.62
Observations	900	900	893
Adjusted R-squared	0.311	0.382	0.382

Standard errors are clustered at the perpetrator's level. *** (**) (*) indicate significance at the 1% (5%) (10%) level.

▸ outline

Gender Inequality Index and Sexual Violence, Restricted eGII

	Dependent Variable: Sexual Violence in Conflict					
	(1)	(2)	(3)	(4)	(5)	(6)
restricted eGII (weighted)	1.40***	1.43***	1.45*			
	(0.502)	(0.525)	(0.755)			
restricted eGII (unweighted)				1.54***	1.57***	1.46**
				(0.455)	(0.480)	(0.658)
Conflict fixed effect	yes	yes	yes	yes	yes	yes
Year fixed effect	yes	yes	yes	yes	yes	yes
Conflict-specific time trend		yes	yes		yes	yes
Victim's characteristic			yes			yes
Mean dep. var.	0.62	0.62	0.62	0.62	0.62	0.62
Observations	900	900	893	900	900	893
Adjusted R^2	0.299	0.368	0.369	0.307	0.376	0.377

Clustered standard errors at the perpetrator level in parentheses.*** p<0.01, ** p<0.05, * p<0.1.

▸ outline

Gender Inequality Index and Sexual Violence. Robustness

	Dependent Variable: Sexual Violence (0-3)					
	Victim FE		Country FE		No time variation	
	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted
	(1)	(2)	(3)	(4)	(5)	(6)
eGII	0.84	0.81*	1.47***	1.48***	1.54**	1.59***
	(0.550)	(0.472)	(0.461)	(0.450)	(0.630)	(0.585)
Adjusted R^2	0.547	0.548	0.296	0.298	0.260	0.269
Restricted eGII	1.20	1.07*	1.01**	1.10***	1.18**	1.40***
	(0.726)	(0.594)	(0.458)	(0.391)	(0.566)	(0.528)
Adjusted R^2	0.550	0.550	0.283	0.287	0.251	0.267
Conflict fixed effect	yes	yes			yes	yes
Country fixed effect			yes	yes		
Year fixed effect	yes	yes	yes	yes		
Conflict-specific time trend	yes	yes				
Country-specific time trend			yes	yes		
Victim fixed effect	yes	yes				
Observations	880	880	900	900	266	266
Clusters	127	127	128	128	128	128

Standard errors clustered at the perpetrator level in parenthesis.* p<0.01, ** p<0.05, * p<0.1.**

▸ outline

Testing the Cultural Clash, Unweighted eGII

	Sexual Violence in Conflict (0-3)			
	(1)	(2)	(3)	(4)
Perp. Inequality Index	0.80	1.69*	1.05	
	(0.567)	(0.956)	(0.979)	
Perpetrator More Unequal	1.26*		1.30*	1.13*
	(0.732)		(0.747)	(0.619)
Perpetrator Less Unequal		-0.24	0.30	0.81
		(0.983)	(1.012)	(1.239)
Conflict fixed effect	yes	yes	yes	yes
Year fixed effect	yes	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes	yes
Perpetrator fixed effect				yes
Mean Dep. Var	0.62	0.62	0.62	0.62
Observations	643	643	643	623
Adjusted R-squared	0.39	0.38	0.39	0.59

Standard errors are clustered at the dyad level. *** (**) (*) indicate significance at the 1% (5%) (10%) level.

▸ outline

Ruling out Alternative Explanations

Controlling for victim's characteristics and victim's FEs

- Rule out that perpetrators strategically use sexual violence to target a valuable asset in the opponent's society (i.e., women)
  - Possible when women have a more prominent role in the victim's society $\rightarrow$ more likely when the perpetrator is more gender unequal than the victim
- Rule out that the results are driven by a higher propensity to report sexual violence when the victim's society is more gender-equal
- *Perpetrator less unequal* coefficient becomes smaller, *Perpetrator more unequal* coefficient becomes larger
  - Possible explanation: women in gender-unequal societies might be more vulnerable and easily targeted

Cultural Clash, Controlling for Victim's Characteristics

	Dep. Variable: Sexual Violence (0-3)			
	(1)	(2)	(3)	(4)
Victim's eGII	0.83	-1.14	1.13	
	(0.879)	(0.806)	(0.997)	
Perpetrator *more* unequal	2.77**		2.64**	2.17
	(1.057)		(1.047)	(2.101)
Perpetrator *less* unequal		-0.75	-0.49	0.88
		(0.658)	(0.641)	(1.527)
Conflict fixed effect	yes	yes	yes	yes
Year fixed effect	yes	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes	yes
Victim fixed effect				yes
Mean Dep. Var	0.62	0.62	0.62	0.62
Observations	643	643	643	625
Adjusted R^2	0.60	0.59	0.60	0.70

Standard errors are clustered at the dyad level. * (**) (*) indicate significance at the 1% (5%) (10%) level.**

▸ back to interpretation

▸ outline

Testing the Cultural Clash. Abstracting from Temporal Variation

	Dependent Variable: Sexual Violence (0-3)			
	(1)	(2)	(3)	(4)
Absolute distance ($\lvert eGII_p - eGII_v \rvert$)	1.98*			
	(1.027)			
Perpetrator's eGII		-0.19	2.71	1.36
		(0.888)	(1.753)	(1.916)
Perpetrator *more* unequal		1.95*		2.26**
		(1.007)		(0.966)
Perpetrator *less* unequal			1.60	2.11
			(1.745)	(1.854)
Conflict fixed effect	yes	yes	yes	yes
Mean Dep. Var	0.54	0.54	0.54	0.54
Observations	189	189	189	189
Adjusted R^2	0.226	0.245	0.234	0.256

Robust standard errors are reported in parenthesis. *** (**) (*) indicate significance at the 1% (5%) (10%) level.

▸ outline

Testing the Cultural Clash. Alternative FEs and alternative versions of the eGII

	Dependent Variable: Sexual Violence (0-3)			
	Conflict-year FE	Country FE	Unweighted eGII	Restricted eGII
	(1)	(2)	(3)	(4)
Perpetrator *more* unequal	1.18**	1.62***	1.14*	1.27**
	(0.521)	(0.514)	(0.618)	(0.502)
Perpetrator *less* unequal	1.60	1.45	0.81	1.55
	(1.067)	(1.246)	(1.239)	(1.260)
Conflict-year fixed effect	yes			
Conflict fixed effect		yes	yes	yes
Year fixed effect		yes	yes	yes
Conflict-specific time trends		yes	yes	yes
Country fixed effect		yes		
Perpetrator fixed effect	yes	yes	yes	yes
Mean Dep. Var	0.62	0.62	0.62	0.62
Observations	604	623	623	623
Adjusted R^2	0.64	0.74	0.74	0.74

Standard errors are clustered at the dyad level. * (**) (*) indicate significance at the 1% (5%) (10%) level.**

▸ outline

Testing the Cultural Clash. Assigning to Governments a Country-level Measure of eGII

	Dependent Variable: Sexual Violence (0-3)				
	(1)	(2)	(3)	(4)	(5)
Absolute distance ($\lvert eGII_p - eGII_v \rvert$)	1.69***				
	(0.495)				
Perpetrator's eGII		0.59	1.70*	0.60	
		(0.832)	(0.886)	(0.934)	
Perpetrator *more* unequal		1.83**		1.83**	1.75***
		(0.867)		(0.867)	(0.434)
Perpetrator *less* unequal			-0.43	0.01	1.52
			(0.933)	(0.855)	(1.112)
Conflict fixed effect	yes	yes	yes	yes	yes
Year fixed effect	yes	yes	yes	yes	yes
Conflict-specific time trends	yes	yes	yes	yes	yes
Perpetrator fixed effect	yes				yes
Mean dep. var.	0.62	0.62	0.62	0.62	0.62
Observations	633	653	653	653	633
Adjusted R^2	0.600	0.367	0.360	0.366	0.599

Government forces' eGII is a country-level measure capturing the weighted average of ethnic groups' eGII within a country, weighted by the size of their land area. Standard errors are clustered at the dyad level. * (**) (*) indicate significance at the 1% (5%) (10%) level.**

▸ outline

Testing the Cultural Clash. Two-way Cluster

	Dependent Variable: Sexual Violence (0-3)				
	(1)	(2)	(3)	(4)	(5)
Absolute distance ($\lvert eGII_p - eGII_v \rvert$)	1.53**				
	(0.623)				
Perpetrator's eGII		0.58	2.05	1.13	
		(0.468)	(1.398)	(1.379)	
Perpetrator *more* unequal		1.44**		1.51***	1.53**
		(0.584)		(0.569)	(0.650)
Perpetrator *less* unequal			0.20	0.64	1.56
			(1.328)	(1.350)	(1.488)
Conflict fixed effect	yes	yes	yes	yes	yes
Year fixed effect	yes	yes	yes	yes	yes
Conflict-specific time trends	yes	yes	yes	yes	yes
Perpetrator fixed effect	yes				yes
Mean dep. var.	0.62	0.62	0.62	0.62	0.62
Observations	623	643	643	643	623
Adjusted R^2	0.579	0.379	0.374	0.379	0.578

Standard errors are clustered at the perpetrator and victim level. * (**) (*) indicate significance at the 1% (5%) (10%) level.**

▸ outline

Testing the Cultural Clash. General Violence

	Dependent Variable: Killings (0-3)				
	(1)	(2)	(3)	(4)	(5)
Absolute Distance	-0.18				
	(0.856)				
Perpetrator Inequality Index		-0.03	-1.40	-0.63	
		(0.720)	(0.991)	(1.136)	
Perpetrator More Unequal		-1.17		-1.24	-0.06
		(0.807)		(0.805)	(0.976)
Perpetrator Less Unequal			-0.35	-0.71	-0.58
			(1.011)	(0.982)	(1.112)
Conflict and Year FE	yes	yes	yes	yes	yes
Conflict-Specific time trends	yes	yes	yes	yes	yes
Perpetrator FE	yes				yes
Mean Dep. Var	1.07	1.07	1.07	1.07	1.07
Observations	623	643	643	643	623
Adjusted R-squared	0.32	0.27	0.26	0.26	0.32

Clustered standard errors at the dyadic level in parentheses. The outcome variable *Killings* reports the number of victim's fatalities. It is coded like the sexual-violence variable and ranges between 0 to 3. *** p<0.01, ** p<0.05, * p<0.1.

outline

Distance in gender norms, **linguistic distance**, and SVAC

	Dependent variable: sexual violence (0-3)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Distance in gender norms ($\lvert eGII_p - eGII_v \rvert$)	1.53***	1.52***	1.54***					
	(0.518)	(0.513)	(0.516)					
Perpetrator *more* gender unequal				1.53***	1.51***	1.53***		
				(0.504)	(0.502)	(0.500)		
Perpetrator *less* gender unequal				1.56	1.54	1.56		
				(1.214)	(1.205)	(1.209)		
Distance in other cultural traits (residuals)		-0.02			-0.02		-0.08	
		(0.050)			(0.049)		(0.107)	
Linguistic distance			-0.02			-0.02		-0.01
			(0.050)			(0.049)		(0.072)
Conflict fixed effect	yes	yes	yes	yes	yes	yes	yes	yes
Year fixed effect	yes	yes	yes	yes	yes	yes	yes	yes
Conflict-specific time trends	yes	yes	yes	yes	yes	yes	yes	yes
Perpetrator fixed effect	yes	yes	yes	yes	yes	yes	yes	yes
Mean dep. var.	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Observations	623	623	623	623	623	623	623	623
Clusters	76	76	76	76	76	76	76	76
Adjusted R^2	0.597	0.596	0.596	0.596	0.596	0.596	0.592	0.592

Standard errors are clustered at the dyad level. *** (**) (*) indicate significance at the 1% (5%) (10%) level.

▸ more ▸ correlations ▸ outline

Distance in gender norms, **religious distance**, and SVAC

	Dependent variable: sexual violence (0-3)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Distance in gender norms ($\lvert eGII_p - eGII_v \rvert$)	1.53***	1.65***	1.65***					
	(0.518)	(0.552)	(0.556)					
Perpetrator *more* gender unequal				1.53***	1.96***	1.96***		
				(0.504)	(0.465)	(0.470)		
Perpetrator *less* gender unequal				1.56	1.14	1.14		
				(1.214)	(1.114)	(1.114)		
Distance in other cultural traits (residuals)		-0.06			0.03		-0.44**	
		(0.182)			(0.177)		(0.212)	
Religious distance			-0.06			0.03		-0.45**
			(0.182)			(0.177)		(0.209)
Conflict fixed effect	yes	yes	yes	yes	yes	yes	yes	yes
Year fixed effect	yes	yes	yes	yes	yes	yes	yes	yes
Conflict-specific time trends	yes	yes	yes	yes	yes	yes	yes	yes
Perpetrator fixed effect	yes	yes	yes	yes	yes	yes	yes	yes
Mean dep. var.	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Observations	623	590	590	623	590	590	590	590
Clusters	76	72	72	76	72	72	72	72
Adjusted R^2	0.597	0.560	0.560	0.596	0.559	0.559	0.556	0.556

Standard errors are clustered at the dyad level. *** (**) (*) indicate significance at the 1% (5%) (10%) level.

▸ more ▸ outline

Linguistic Distance

- Linguistic distance is a salient dimension of culture, transmitted through generations (Spolaore and Wacziarg 2016)
- We use Fearon's (2003) measure of linguistic distance (cladistic distance), based on linguistic trees in the Ethnologue
- We merge information on languages spoken by ethnic groups through the EPR dataset, and compute distances between each pair of languages based on the number of common nodes in the tree

$$d_{ij} = 1 - \left(\frac{\#\text{ of common nodes between } i \text{ and } j}{\frac{1}{2}(\#\text{ of nodes of language } i + \#\text{ of nodes of language } j)} \right)^{\lambda}$$

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Religious Distance

- Similar to languages, the EPR dataset codes up to three religions professed by each ethnic group, as well as their relative size
- We construct a measure of religious distance analogous to the one for linguistic distance, exploiting the EPR classification of language segments

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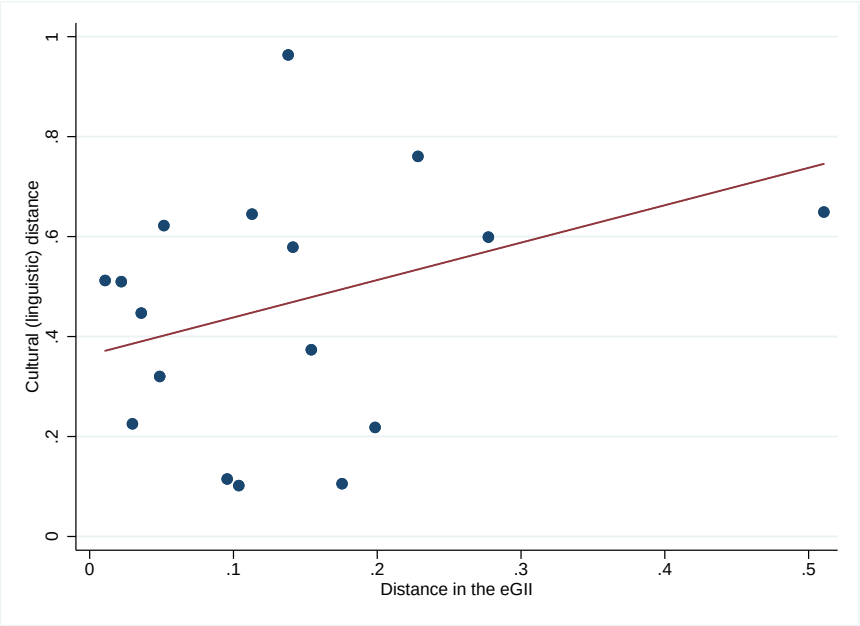
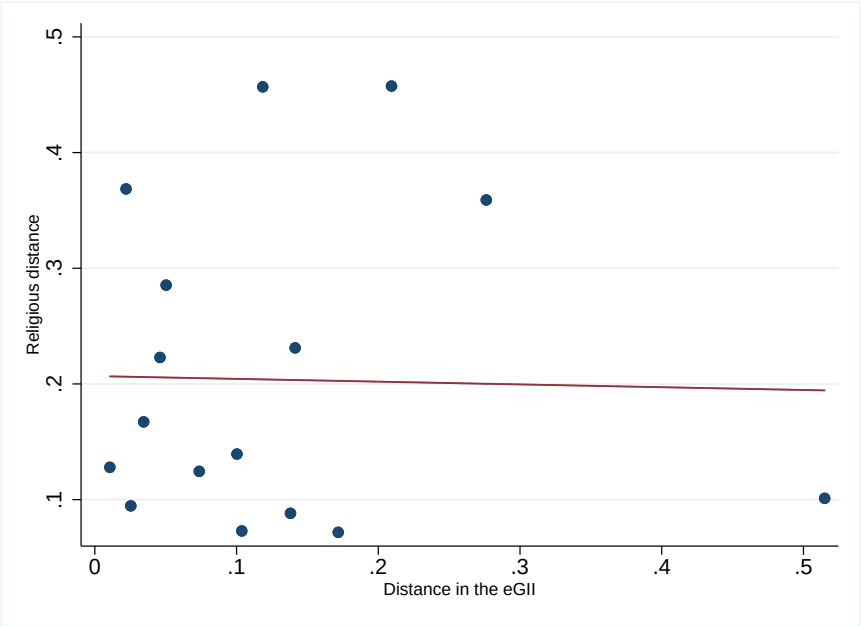
Correlations between Cultural Distances

Linguistic distance and distance in gender norms



Correlation between the absolute distance in gender norms between the combatants and their cultural (linguistic) distance for the sample of ethnicities involved in inter-ethnic conflict. Correlation coefficient: 0.25***. Sources: Murdock Ethnographic Atlas and Ethnologue.

Religious distance and distance in gender norms



Correlation between the absolute distance in gender norms between the combatants and their religious distance for the sample of ethnicities involved in inter-ethnic conflict. Correlation coefficient: -0.02. Sources: Murdock Ethnographic Atlas and EPR-ED dataset.

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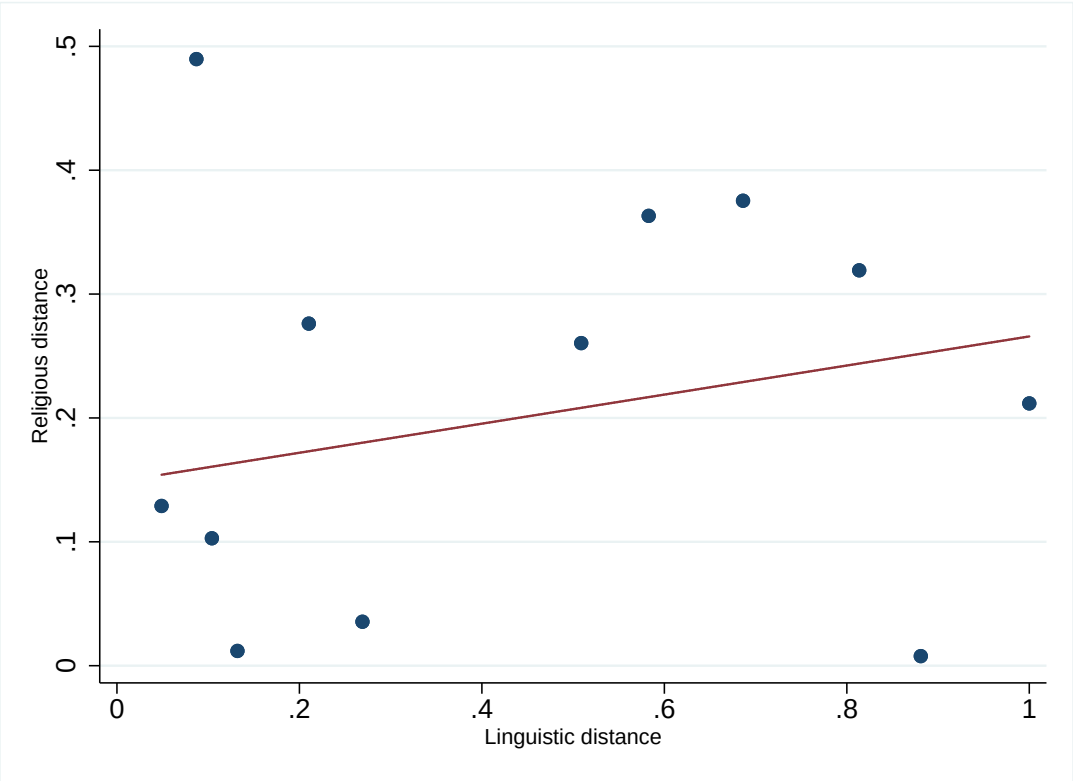
Correlations between Cultural Distances

Linguistic distance and religious distance



Correlation between linguistic distance and religious distance for the sample of ethnicities involved in inter-ethnic conflict. Correlation coefficient: 0.23***. Sources: Ethnologue and EPR-ED dataset.