The Dual Causal Effect of Local Social Capital on Political Violence: Evidence from Africa

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Introduction

This paper has two aims: 1) identifying the causal effect of local social capital (trust in their traditional leaders or neighbors) and 2) finding the relational mechanism that alleviates the adverse effect of local trust on political stability in Africa.

Conceptual Frameworks

Common Pool Resources (CPRs) → Mode of Production (settlement patterns) → Trust in local chiefs (ancestors)
Trust in local chiefs (descendants) → Political violence

CPRs indicate subtractive resources that are used by multiple appropriators, such as lakes or fishing grounds. CPRs cause overuse problem, thus the inhabitants near CPRs interact with each other to collectively manage the CPRs. The dense networks within a closed group of people lead shared norms (trust) to be emerged. Applying it to Africa, CPRs are the bodies of water as they determine the mode of production and the relational networks (settlement patterns). Therefore, the ancestors whose homeland has bodies of water formed sedentary communities which helped them extend trust from family to extra familiar level (trust in their local chiefs/or neighbors).

	Types of settlement				
	Permanent community-based settlement		Nomadic family-based settlement		Mean Difference
	Mean (1)	SD (2)	Mean (3)	SD (4)	(1) -(3)
Panel A. Natural environment					
Ln Water (km)	0.476	[0.406]	0.325	[0.350]	0.151***
Panel B. Mode of production					
Fishing	1.055	[0.836]	0.525	[0.791]	0.530***
Agriculture	6.221	[0.980]	5.564	[1.30]	0.656***
Animal Husbandry	1.576	[0.996]	2.617	[1.271]	-1.041***
Hunting	0.731	[0.726]	0.889	[0.610]	-0.158***
Observations (number of ethnic group)	40,670 (70)		28,140 (62)		68,810 (132)

Applying the bounded solidarity (internally altruistic but externally aggressive) attribute of local social capital to the local-chief centered governance in Africa, it is hypothesized that trust in local chief reduces the violence within the community while it increases the violence against out-group members.

Data and Methodology

Data sources:
- Trust: Afrobarometer survey v. 3 to 7 (covering 53,374 respondents 2005-2018)
- Violence: Armed Conflict Location and Event Data Project 2005-2018
- Ethnic features (geographic homeland, ethnic institutions): Michalopolous et al (2013, 2016)
- District level features (Petroleum, ethnic fractionalization, road density): UNOCHA, Geological Survey, Peace Research Institute Oslo and etc.

IV estimation (Individual Level)

$$Settlement_{iedpc} = \alpha\, Z_{ec}^{Water} + X_{ec}'^{G}\Gamma + X_{ec}'^{E}\Omega + X_{iedpc}'^{C}\Phi + X_{iedpc}'^{D}\Pi + \lambda_p + \varepsilon_{iedpc}$$

$$Trust_{iedpc} = \beta\, \hat{Z}_{iedpc}^{Settlement} + X_{ec}'^{G}\Gamma + X_{ec}'^{E}\Omega + X_{iedpc}'^{C}\Phi + X_{iedpc}'^{D}\Pi + \lambda_p + \nu_{iedpc}$$

IV estimation (Community Level)

$$X_{dpc}^{E} = \sum\{\frac{N_{iedpc}}{N_{dpc}}\} X_{e}^{E}$$

District as the unit of analysis
- The jurisdiction of a local chief is territorial.
- 50-60% of population now lives in outside ethnic homeland

$$Trust_{dpc} = \gamma\, Z_{dpc}^{Water} + X_{dpc}'^{G}\Theta + X_{dpc}'^{E}\Lambda + X_{dpc}'^{D}\Pi + X_{dpc}'^{D}\Psi + \lambda_p + \zeta_{dpc}$$

$$Violence_{dpc} = \delta\, Trust_{dpc} + X_{dpc}'^{G}\Theta + X_{dpc}'^{E}\Lambda + X_{dpc}'^{C}\Pi + X_{dpc}'^{D}\Psi + \lambda_p + \xi_{dpc}$$

Result

Inhabitants whose ancestors constructed a sedentary community in precolonial era has 0.34 more trust in his or her local chief, 19.6% of sample mean, than those whose ancestor's precolonial settlement is nomadic.

Dependent variable (panels A, B and C)	Parsimonious specifications			Baseline specification			
	Trust in traditional leader (1)	Trust in traditional leader (2)	Trust in traditional leader (3)	Trust in traditional leader (4)	Trust in neighbors (5)	Trust in local gov't council (6)	Trust in national president (7)
Panel A. 2SLS estimates							
Community settlement	0.426*** (0.131)	0.555** (0.226)	0.346* (0.181)	0.342** (0.173)	0.799* (0.427)	0.228 (0.207)	0.211 (0.259)
Panel B. OLS estimates							
Ln (Bodies of water)	0.058* (0.031)	0.033 (0.035)	0.041 (0.036)	0.036 (0.034)	0.105* (0.063)	-0.045 (0.033)	0.033 (0.039)
R^2	0.163	0.167	0.168	0.185	0.263	0.140	0.138
Panel C. Reduced-form estimates							
Ln (Bodies of water)	0.140*** (0.041)	0.114** (0.046)	0.093* (0.050)	0.092* (0.047)	0.168** (0.068)	0.054 (0.047)	0.051 (0.064)
R^2	0.163	0.167	0.168	0.185	0.264	0.140	0.138
Dependent variable (panel D):	Community settlement						
Panel D. First-stage estimates							
Ln (Bodies of water)	0.330*** (0.058)	0.206*** (0.041)	0.268*** (0.045)	0.268*** (0.045)	0.210*** (0.076)	0.238*** (0.053)	0.241*** (0.048)
KP F-Stat	32.64	24.70	34.82	34.99	7.506	19.66	25.14
Controls (for all panels):							
Geographical features	YES	YES	YES	YES	YES	YES	YES
Ethnic features	NO	YES	YES	YES	YES	YES	YES
Colonial features	NO	NO	YES	YES	YES	YES	YES
Demographics	NO	NO	NO	YES	YES	YES	YES
Province fixed effects	YES	YES	YES	YES	YES	YES	YES
R^2	0.815	0.854	0.870	0.870	0.886	0.867	0.866
Observations (for all panels):	37,891	37,076	37,076	36,776	10,651	36,621	53,374

(Internal violence: violence against civilians): 1 SD increase in trust reduces civilian fatalities by 0.38 SD
(External violence: non-state militias battle): 1 SD increase in trust increases battle fatalities by 0.8 SD

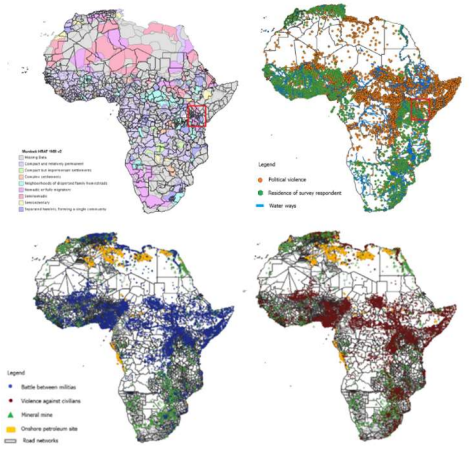
Dependent variable:	Parsimonious specifications			Baseline specification			
Violence against civilians	Fatalities			Fatalities		Incidences	
Type of attackers:	Non-state militias (1)	Non-state militias (2)	Non-state militias (3)	Non-state militias (4)	State forces (5)	Non-state militias (6)	State forces (7)
Panel A. 2SLS estimates							
Trust in traditional leaders	-0.171** (0.081)	-0.223** (0.088)	-0.210** (0.103)	-0.225** (0.106)	0.127 (0.086)	-0.209*** (0.077)	-0.002 (0.016)
Panel B. OLS estimates							
Trust in traditional leaders	-0.002 (0.007)	-0.002 (0.007)	-0.003 (0.008)	0.0004 (0.009)	-0.003 (0.007)	-0.004 (0.006)	-0.005 (0.004)
R^2	0.525	0.531	0.534	0.538	0.266	0.424	0.350
Panel C. Reduced-form estimates							
Ln (Bodies of water)	-0.085*** (0.033)	-0.110*** (0.040)	-0.110** (0.050)	-0.113** (0.051)	0.064* (0.035)	-0.105*** (0.035)	-0.001 (0.008)
R^2	0.526	0.532	0.535	0.539	0.267	0.426	0.349
Dependent variable:	Parsimonious specifications			Baseline specification			
Battles of non-state militias	Fatalities			Fatalities		Incidences	
Type of counterparts:	Non-state militias (1)	Non-state militias (2)	Non-state militias (3)	Non-state militias (4)	State forces (5)	Non-state militias (6)	State forces (7)
Panel A. 2SLS estimates							
Trust in traditional leaders	0.215* (0.122)	0.229** (0.107)	0.237** (0.094)	0.254** (0.112)	0.254 (0.359)	0.017 (0.018)	0.024 (0.069)
Panel B. OLS estimates							
Trust in their traditional leaders	0.008 (0.007)	0.008 (0.007)	0.009 (0.007)	0.011* (0.006)	0.004 (0.019)	0.001 (0.002)	-0.000 (0.008)
R^2	0.354	0.359	0.363	0.368	0.482	0.388	0.437
Panel C. Reduced-form estimates							
Ln (Bodies of water)	0.128*** (0.049)	0.122** (0.053)	0.128*** (0.049)	0.128*** (0.049)	0.128 (0.172)	0.009 (0.010)	0.012 (0.034)
R^2	0.371	0.371	0.371	0.371	0.483	0.388	0.437
Dependent variable (panel D):	Trust in traditional leaders						
Panel D. First-stage estimates							
Ln (Bodies of water)	0.503*** (0.123)	0.503*** (0.123)	0.503*** (0.123)	0.503*** (0.123)	0.503*** (0.123)	0.503*** (0.123)	0.503*** (0.123)
F-statistics	14.19	13.07	16.12	13.67	13.67	13.67	13.67
(All panels)							
Geographical features	YES	YES	YES	YES	YES	YES	YES
Precolonial ethnic features	NO	YES	YES	YES	YES	YES	YES
Colonial features	NO	NO	YES	YES	YES	YES	YES
Demographic features	NO	NO	NO	YES	YES	YES	YES
R^2	0.464	0.464	0.464	0.464	0.464	0.464	0.464
Observations (all panels)	1,921	1,921	1,921	1,921	1,921	1,921	1,921

Heterogeneous Analysis

The importance of trust in local chiefs on violence is not necessarily larger if the areas are at greater risk of others' attacks. Rather the influence of local trust on violence becomes substantial when the context feature is positively associated with the political dominance of local chiefs.

The findings reveal the relational nature of local social capital whose attribute is moderated by its connectedness to the state in which the community is embedded.

	Dependent variable: Battles between non-state militias								
		Mineral mine		Petroleum		Near Borders		Fractionalization	
	Baseline (1)	Absence (2)	Presence (3)	Far (4)	Near (5)	Far (6)	Near (7)	Low (8)	High (9)
Panel A. Features related to civil conflicts									
Trust in traditional leaders	0.254** (0.112)	0.310** (0.137)	-0.007 (0.017)	0.280 (0.214)	0.442 (0.334)	0.403** (0.163)	0.465* (0.276)	0.204*** (0.067)	2.228 (10.335)
KP F-Stat	13.67	12.06	0.863	1.165	2.425	8.361	4.492	13.76	0.0365
Observations	1,921	1,345	143	725	816	725	725	953	953
		Road density		Night light		School		Piped water	
		Low (10)	High (11)	Low (12)	High (13)	Low (14)	High (15)	Low (16)	High (17)
Panel B. Features related to the penetration of state power									
Trust in traditional leaders		0.483* (0.276)	0.322 (0.199)	0.429*** (0.155)	0.310 (0.423)	0.222** (0.106)	0.429 (0.304)	0.453** (0.176)	0.119 (0.126)
KP F-Stat		722	721	583	583	536	1,037	699	874
Observations		0.023 3.062	0.147 6.110	0.165 7.010	-0.493 2.224	0.446 21.90	-0.366 4.345	-0.319 12.31	0.476 5.413



Conclusion

This study examines the importance of a psychological factor on political violence in the context of African statehood. Focusing on local social capital, this article describes how historically originated trust within a community exerts a dual causal effect on political violence. The findings suggest that the increased trust in local chiefs reduces civilian deaths by unilateral attacks by non-state militias, while increasing battle fatalities in clashes with external groups.

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