Human Behavior and Social Structure in the DRC

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Research Agenda

Broader questions:

- Is Africa culturally and socially distinct from other parts of the world, particularly the West?
- If so, what are the causes and consequences of these differences?

This talk:

- Will provide an overview of the beginning of a research agenda that hopes to start answering these questions.
- Touch on evidence from focus groups and preliminary surveys.

Defining characteristics of African societies?

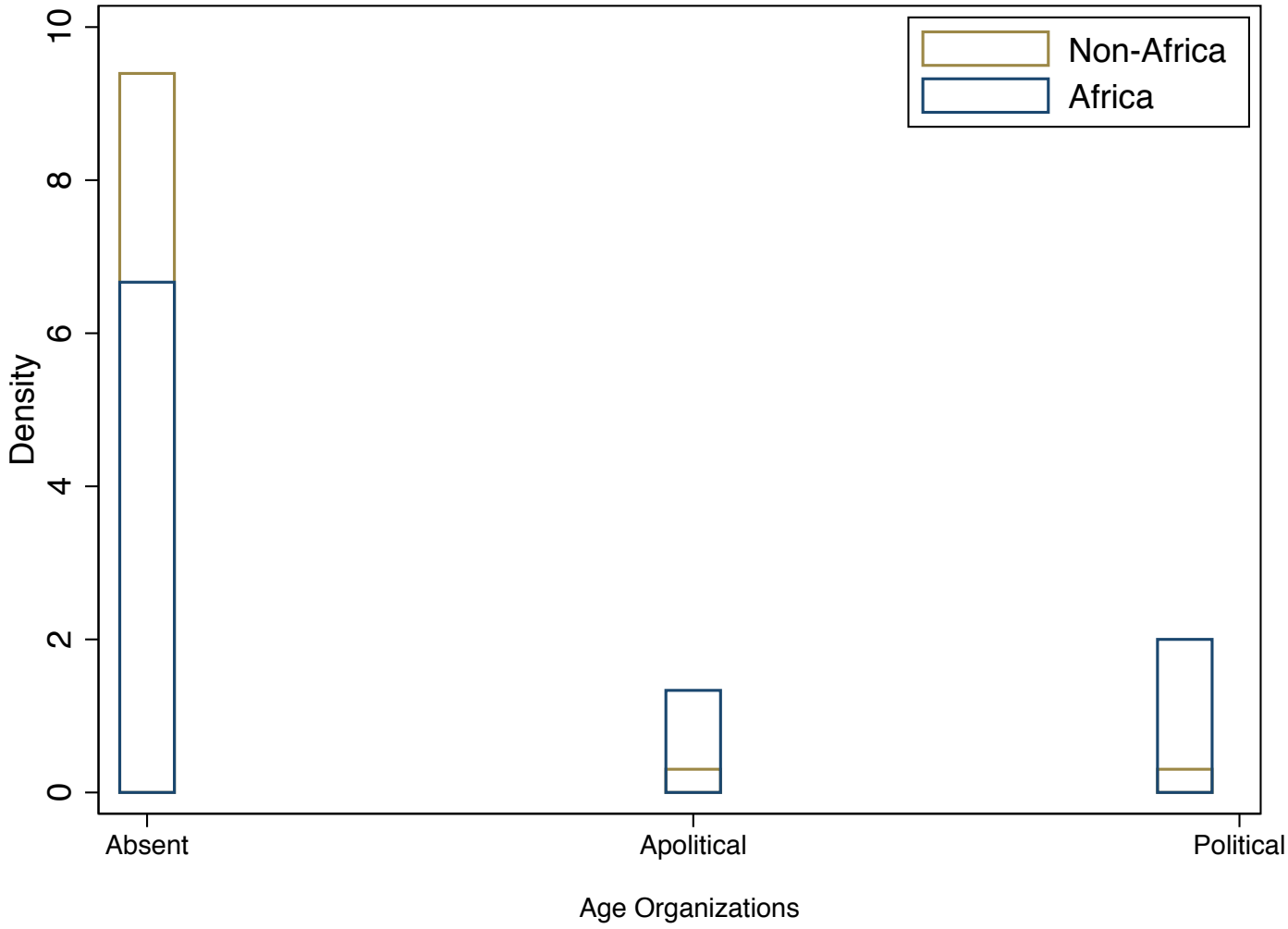
Individual-level values and beliefs:

- A 'zero-sum' view of the world (Foster, 1965)
  - Strong redistributive norms
  - Tall-poppy syndrome
- Strong beliefs in witchcraft / sorcery

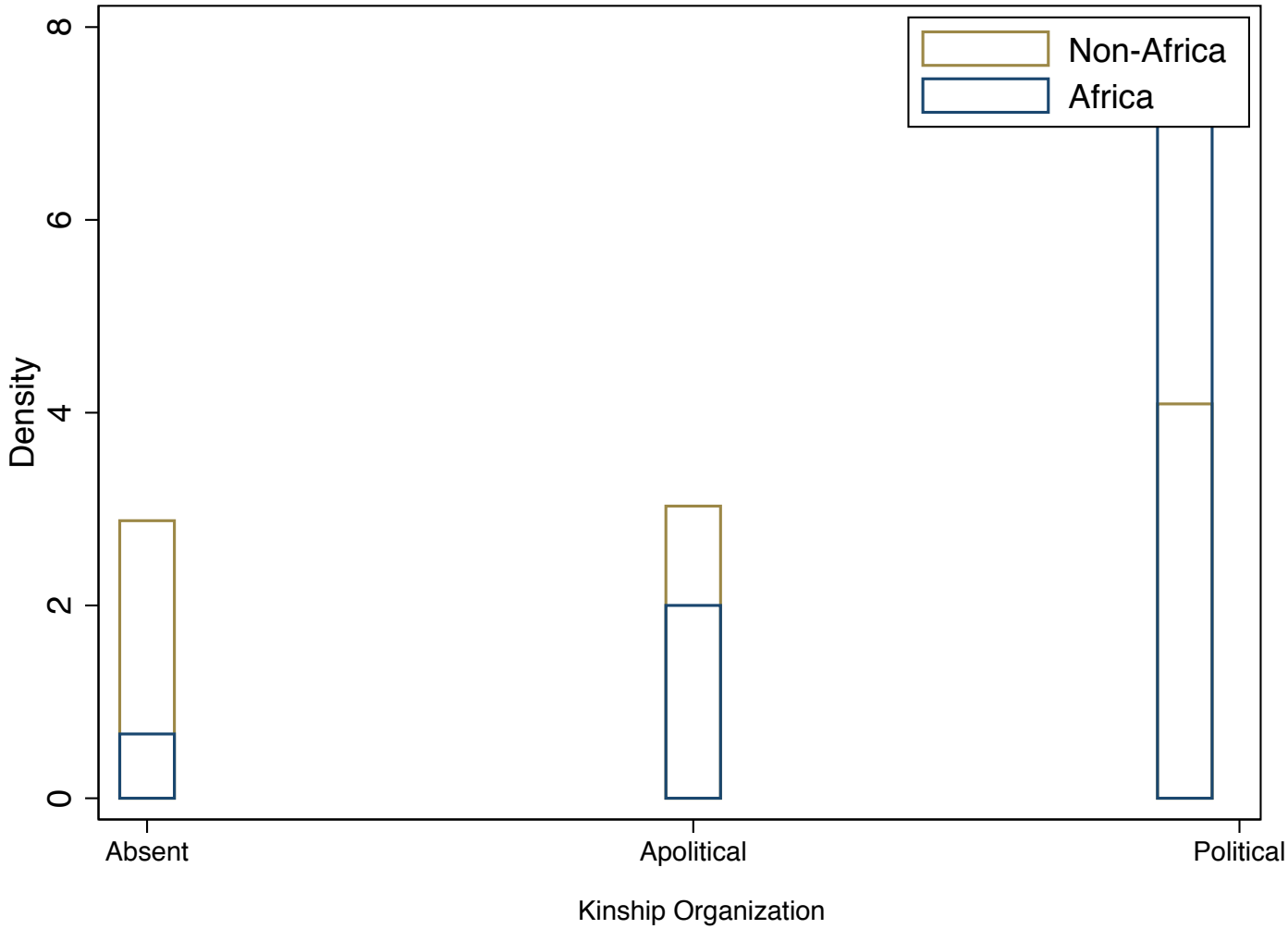
Social organization:

- Age sets and age grades
- Segmentary lineage systems

Age-based organization (i.e., age sets / age grades)



Kinship organization (i.e., lineages)



Locations of field sites

Primary field site, Kananga

Characteristics:

- Provincial capital.
- City of approximately 2 million people.
- Culturally diverse.
- Poor infrastructure e.g., no running water, no electricity.
- Very little NGO or foreign presence.

Principle of Limited Good

- According to George Foster, many societies had a zero-sum view of the world.
  - Called this the "principle of limited good".
- This applies not just to physical goods, but also to health, happiness, power, etc.
- This 'world view' may be intimately linked to other characteristics:
  - Redistributive norms.
  - Tall-poppy syndrome.
  - Effects of foreign aid and foreign intervention.

Measuring a zero-sum world view

How does one measure whether a person has a zero-sum view of the world?

- One strategy is through survey questions. An example is,
  - Statement 1: Gaining happiness requires taking it away from others.
  - Statement 2: It is possible for everyone to be happy.
- Sample survey results (225 indiv):

  17: Agree strongly with statement 1
  41: Agree with statement 1
  88: Agree with statement 2
  71: Agree strongly with statement 2

Witchcraft / sorcery

Examples (from focus groups):

- Spells & fetishes/amulets used to make money.
- Spells & fetishes/amulets used to hurt others.
- Spells & fetishes/amulets used for protection.
- Spells & amulets used in warfare.
- In Kananga: The Thunderman.

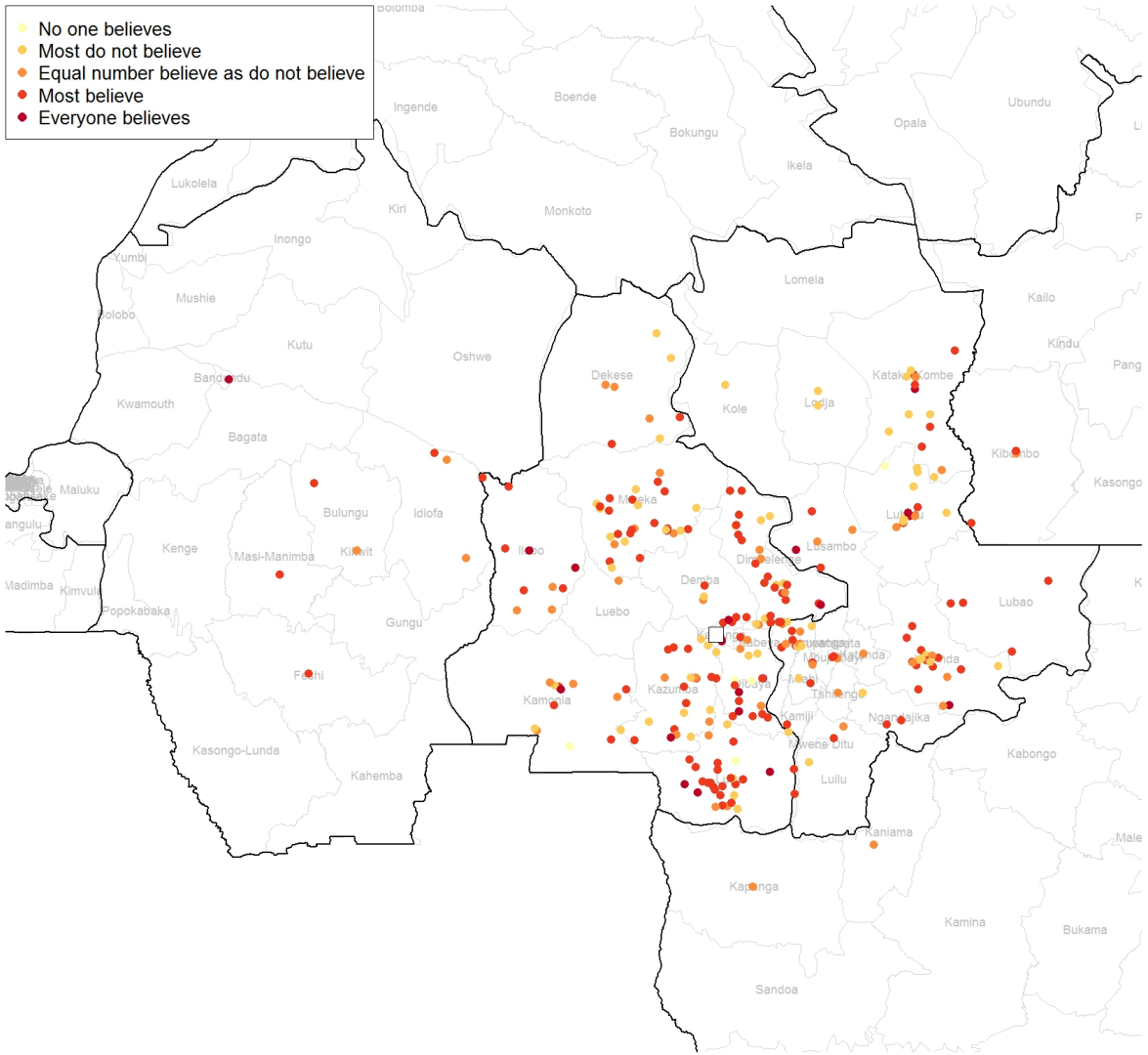
First-order questions:

- Do people really believe in witchcraft/sorcery?
- How widespread are these beliefs?
- Does witchcraft affect anything economists care about?

Do people believe? Survey evidence

- Survey undertaken in Kananga of 336 individuals from different origin villages.
- In your village, to what extend do individuals believe they can harm others or protect themselves through supernatural means:
  - 5: No one believes
  - 83: Most do not believe
  - 61: Equal number believe as do not believe
  - 152: Most believe
  - 26: Everyone believes
  - 9: Doesn't know

Spatial distribution of witchcraft beliefs



Consequences of witchcraft beliefs: An example

Use of vignettes: An example

- "Imagine we are in a village outside of Kananga. The primary crop is maize. Imagine that one farmer, named Mutombo, has a maize harvest that is twice as large as all other farmers in the village."

Vignettes: Witchcraft/Sorcery

What will others believe is the most likely reason for Mutombo's success?

62: Hard work

25: Skill

11: Good luck

53: Prayer / blessings from God

72: Use of fetishes or witchcraft / ancestors

Vignettes: Zero-sum

- In the same year one of the other farmers has a particularly terrible harvest and his crop was completely eaten by insects.
- How likely is it that others will blame Mutombo for the ruined crop?

  43: Very likely
  111: Likely
  25: Neither likely nor unlikely
  28: Unlikely
  18: Very unlikely

Vignettes: Redistributive pressures

- Will other people in the village expect Mutombo to share some of his new wealth with them?
  - 29: Yes, everyone will.
  - 46: Yes, most people will.
  - 64: Yes, family and close friends will.
  - 38: Yes, family will.
  - 47: No, no one will.

Vignettes: Tall-poppy syndrome

- How likely is it that other members of the village will try to sabotage Mutombo's crop in some way?
  - 40: Very likely
  - 121: Likely
  - 34: Neither likely nor unlikely
  - 27: Unlikely
  - 3: Very unlikely

Summing up

- Preliminary focus groups and survey evidence is consistent with:
  - A zero-sum view of the world (for some)
  - Redistributive pressures
  - A tall-poppy syndrome
  - All of which may be linked to witchcraft
- Many remaining questions:
  - What are the determinants of these characteristics (short-run or long-run)?
  - What are the consequences of these characteristics for economic development?

Social organization: Age sets

Definition (Radcliffe-Brown, 1929):

- A recognised and sometimes organized group consisting of persons (often male persons only) who are of the same age.
- An age-set is normally formed of all those males who are initiated at one time.
- Once a person enters a given age-set, he remains a member of the same age-set for the remainder of his life.
- Each age-set normally passes from one age grade to another as a group.

Social organization: Age sets

Political consequences of age sets

- Age sets build strong horizontal ties.
- But, these may be at the expense of vertical ties.
- For example, a young man will have a much stronger allegiance with other men in his age set in other villages than with the elders or even chief within his own village.

Evidence from initial surveys (n=328) in Gemena

Individuals from villages with age sets:

- Are less likely to believe that it is important to agree with elders.
- Have a more negative view of their chiefs.
- Have less confidence in their chiefs.

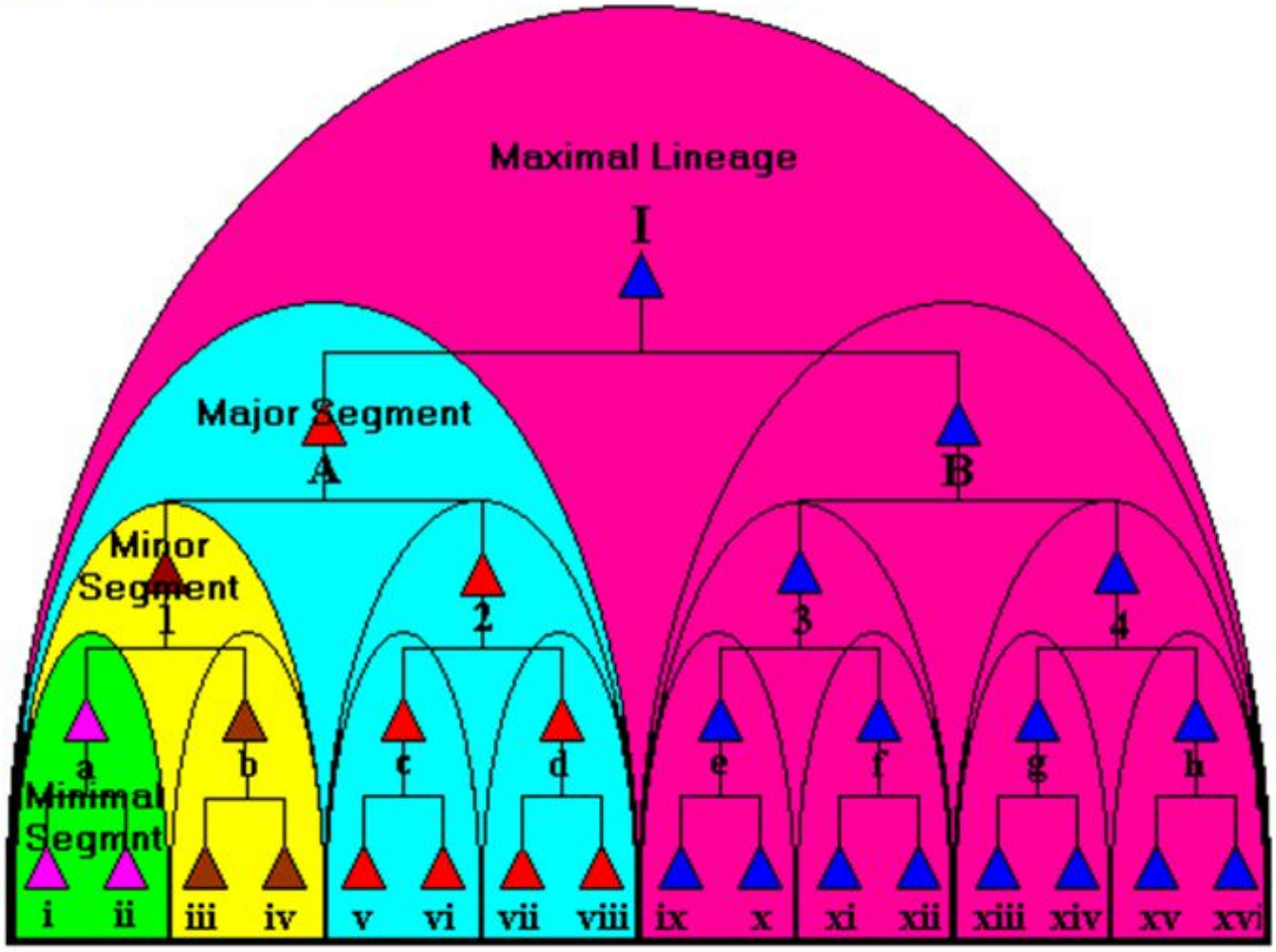
This is despite the fact that chiefs in villages with age sets are:

- More likely to be appointed democratically.
- Provide more public goods.

Segmentary Lineage Systems

- Definition from Evans-Pritchard and Fortes (1940):
  1. Political and administrative association based on a (unilineal) lineage structure.
  2. Individuals are aware of their genealogical relationship to other tribe members, including most recent common ancestor – this biological distance guides social interactions.
  3. Patterns of residence based on the lineage structure.

Segmentary Lineage Systems



Relationship with conflict

- There is an established literature in anthropology hypothesizing a link between segmentary lineage organizations and the incidence and escalation of armed conflicts
- Sahlins (1961) argues:
  - *"[T]he segmentary lineage organization is a successful predatory organization in conflicts with other tribes... [War], even if it has been initiated by a small lineage segment, it pits 'all of us' against 'them'."*
- Evans-Pritchard (1969), discussing the Nuer, explains:
  - *"Each segment is itself segmented and there is opposition between its parts. The members of any segment unite for war against adjacent segments of the same order and unite with these adjacent segments against larger sections."*

Measuring the presence of a Segmentary Lineage Society

- We were able to code 145 societies in Africa as either having or not having segmentary lineage systems
  - From the *Ethnographic Survey of Africa*, a series of studies edited by Daryll Forde and produced from the 1940s until the 1970s.
- We coded a society as having a segmentary lineage organization if group had a:
  1. There is a recognized and known unilineal descent system.
  2. Branching of the lineage determines both administrative divisions and political allegiances.
  3. Lineages influenced residence location.

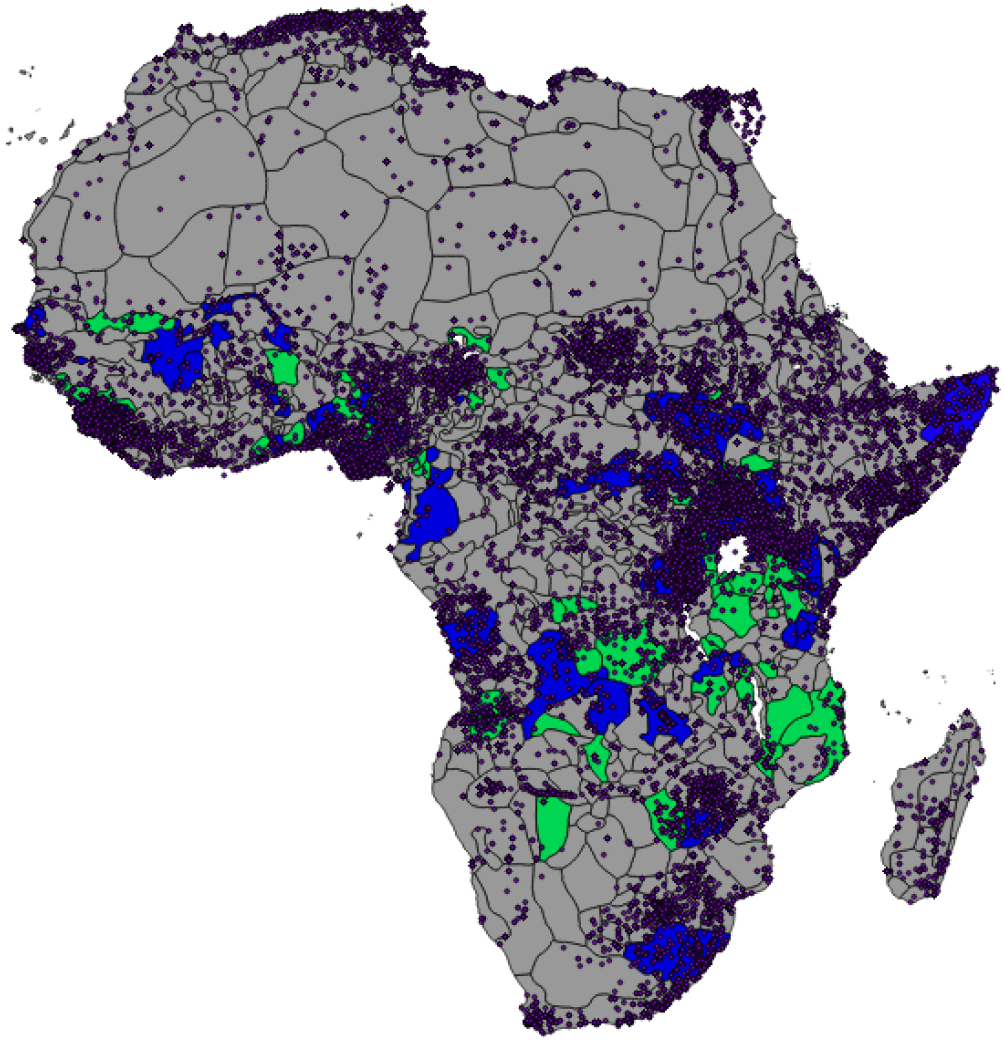


Figure: ACLED conflict Incidents (1997-2014) and SLS: Blue denotes a SLS and green is a non-SLS

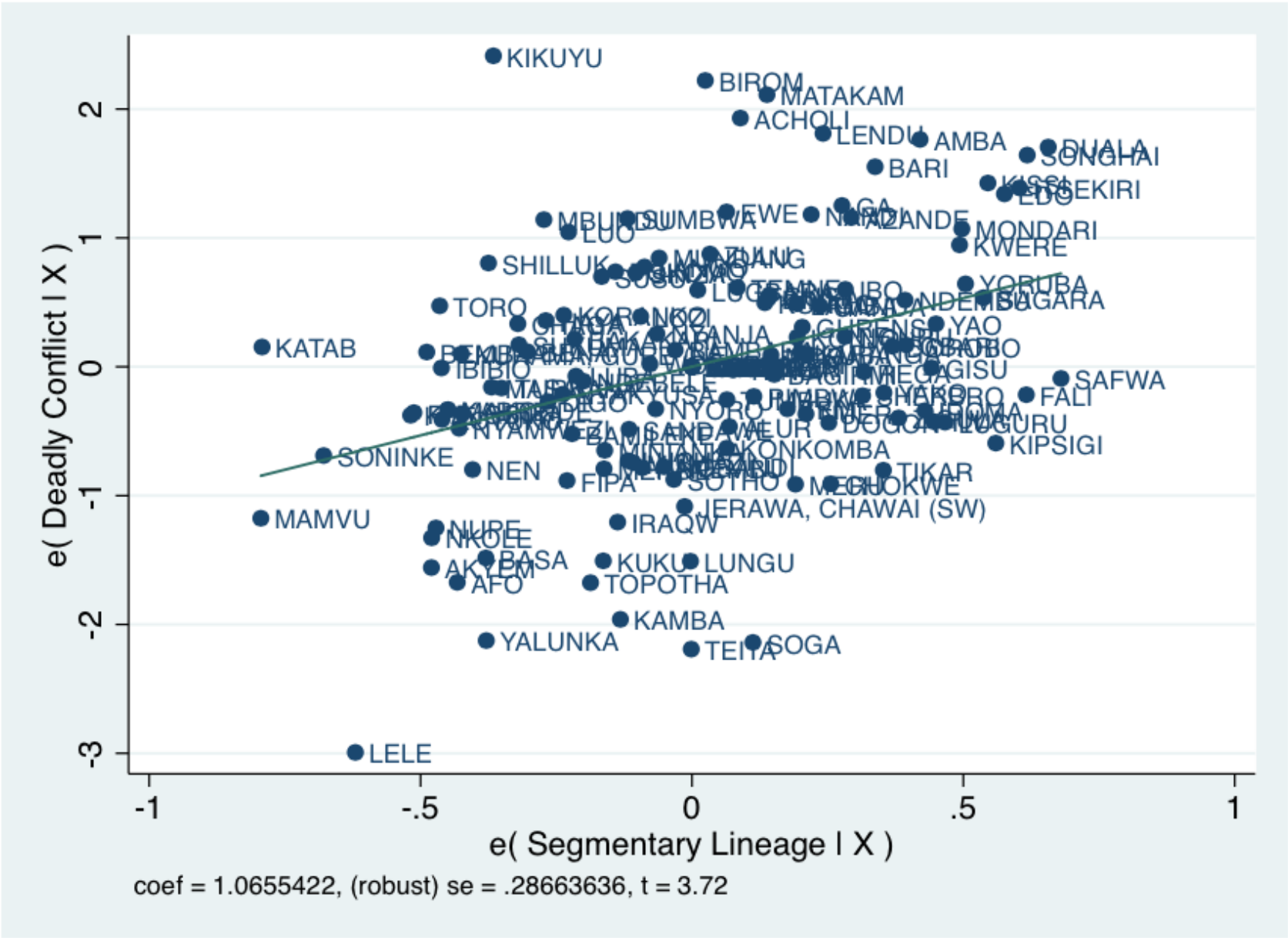
SLS and state centralization

	State	*Stateless*
Segmentary Lineage	n=20 Eg. Somali, Duala, Ndembu	n=53 Eg. Nuer, Tiv, Rega
Not Segmentary Lineage	n=32 Eg. Kuba, Haya, Igala	n=36 Eg. Kung, Masai, Mende

SLS and conflicts (1997-2014)

	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Deadly Conflict Incidents & Fatalities					
	Outcome Var. is Log(1+Deadly Conflict)			Outcome Var. is Log(1+Fatalities)		
Segmentary Lineage	1.142***	1.149***	1.068***	1.556***	1.629***	1.264**
	[0.331]	[0.250]	[0.286]	[0.525]	[0.445]	[0.524]
Jurisdictional Hierarchy			-0.129			-0.415*
			[0.157]			[0.223]
Mean of Outcome Var.	2.556	2.556	2.556	4.006	4.006	4.006
R-squared	0.541	0.696	0.776	0.571	0.687	0.766
	Panel B: Conflict by Type					
	Outcome Var. is Log(1+Battles)			Outcome Var. is Log(1+Violence Against Civilians)		
Segmentary Lineage	1.071***	1.127***	1.066***	1.036***	1.053***	1.044***
	[0.333]	[0.273]	[0.297]	[0.332]	[0.260]	[0.290]
Jurisdictional Hierarchy			-0.104			0.011
			[0.147]			[0.166]
Mean of Outcome Var.	2.421	2.421	2.421	2.657	2.657	2.657
R-squared	0.631	0.759	0.815	0.534	0.692	0.772
	Panel C: Conflict Duration					
	Outcome Var. is Years with Conflict			Outcome Var. is Years with 1000+ Fatalities		
Segmentary Lineage	3.615***	3.246***	3.497***	1.276***	1.466***	1.179***
	[1.220]	[0.949]	[1.063]	[0.406]	[0.389]	[0.414]
Jurisdictional Hierarchy			0.137			-0.293
			[0.518]			[0.268]
Mean of Outcome Var.	9.786	9.786	9.786	1.138	1.138	1.138
R-squared	0.516	0.684	0.764	0.448	0.540	0.648
Country & Language Group FE	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	Yes	No	Yes	Yes
Historical controls	No	No	Yes	No	No	Yes
Observations	145	145	141	145	145	141

Partial correlation plot: SLS and deadly conflicts



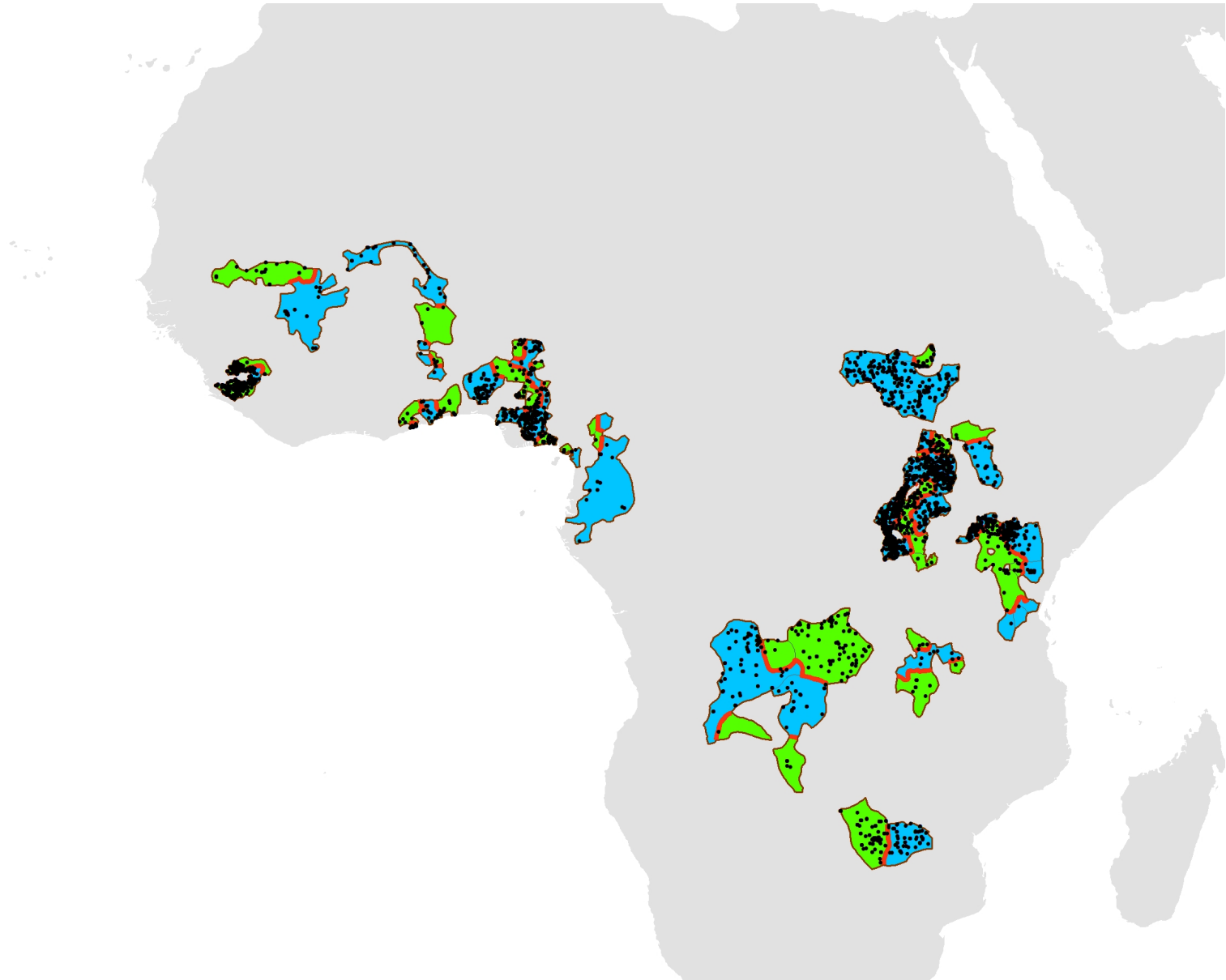
Impacts by scale of conflict

Outcome Variable:	Incidents with 0 fatalities (1)	Incidents with 1-10 fatalities (2)	Incidents with 11 100 fatalities (3)	Incidents with 100+ fatalities (4)
		Panel A: Negative Binomial		
Segmentary Lineage	0.663**	0.889***	1.199***	1.561***
	(0.267)	(0.291)	(0.328)	[0.573]
Observations	141	141	141	141
Mean of dep. Variable:	131.11	40.572	12.414	2.545
Country FE	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes
Political Centralization	Yes	Yes	Yes	Yes

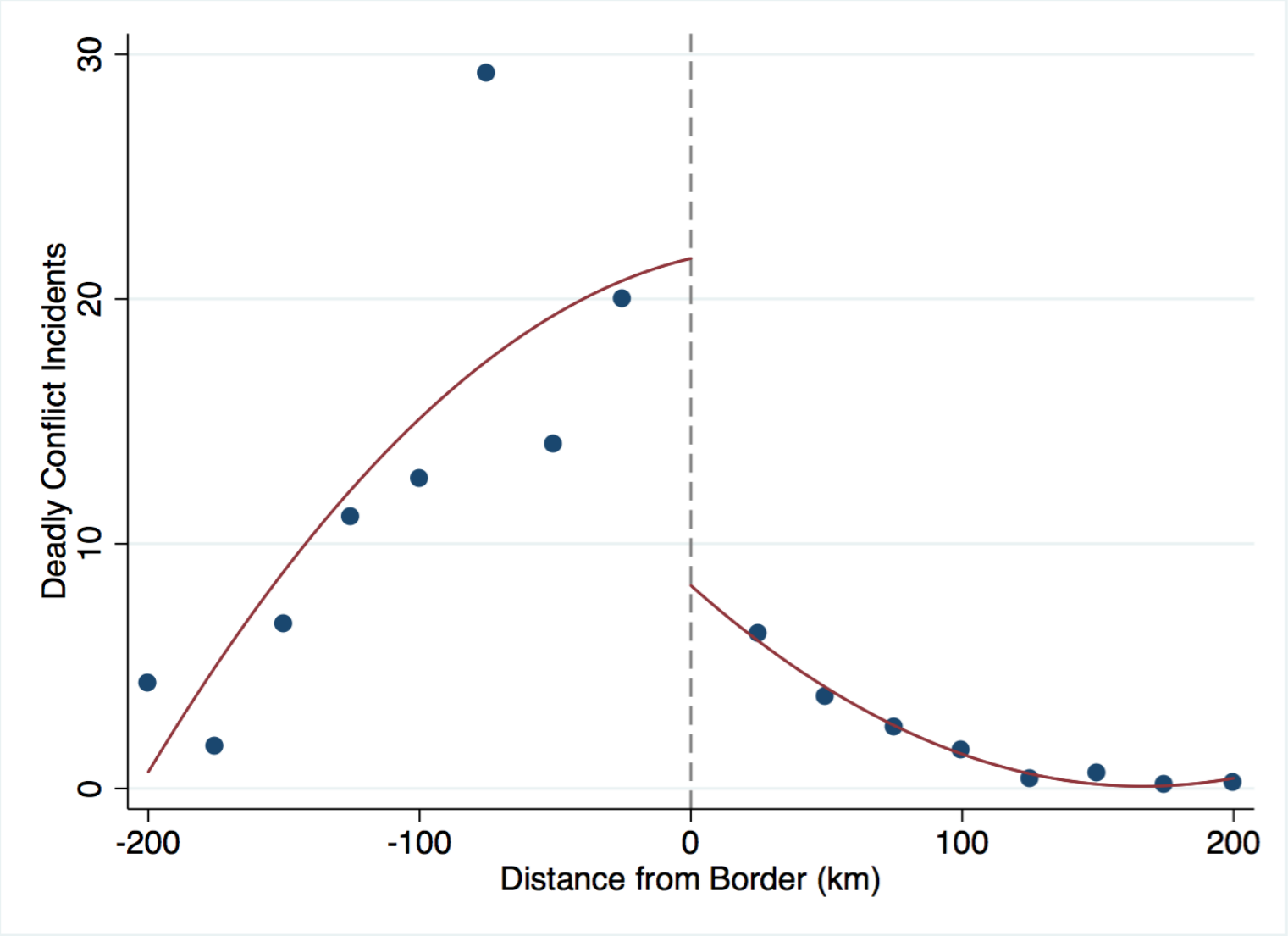
Conflict onset and duration: Hazard models

	(1)	(2)	(3)	(4)	(5)	(6)
	Outcome Var. is Conflict Onset			Outcome Var. is Conflict Offset		
Segmentary Lineage	0.472***	0.459*	0.613*	-0.753***	-0.784***	-0.809***
	(0.181)	(0.237)	(0.334)	(0.166)	(0.241)	(0.227)
Third degree polynomial of duration	Yes	Yes	Yes	Yes	Yes	Yes
Country & Language Group FE	No	Yes	Yes	No	Yes	Yes
Geographic & Historical controls	No	No	Yes	No	No	Yes
Observations	1162	1143	1091	1303	1183	1164

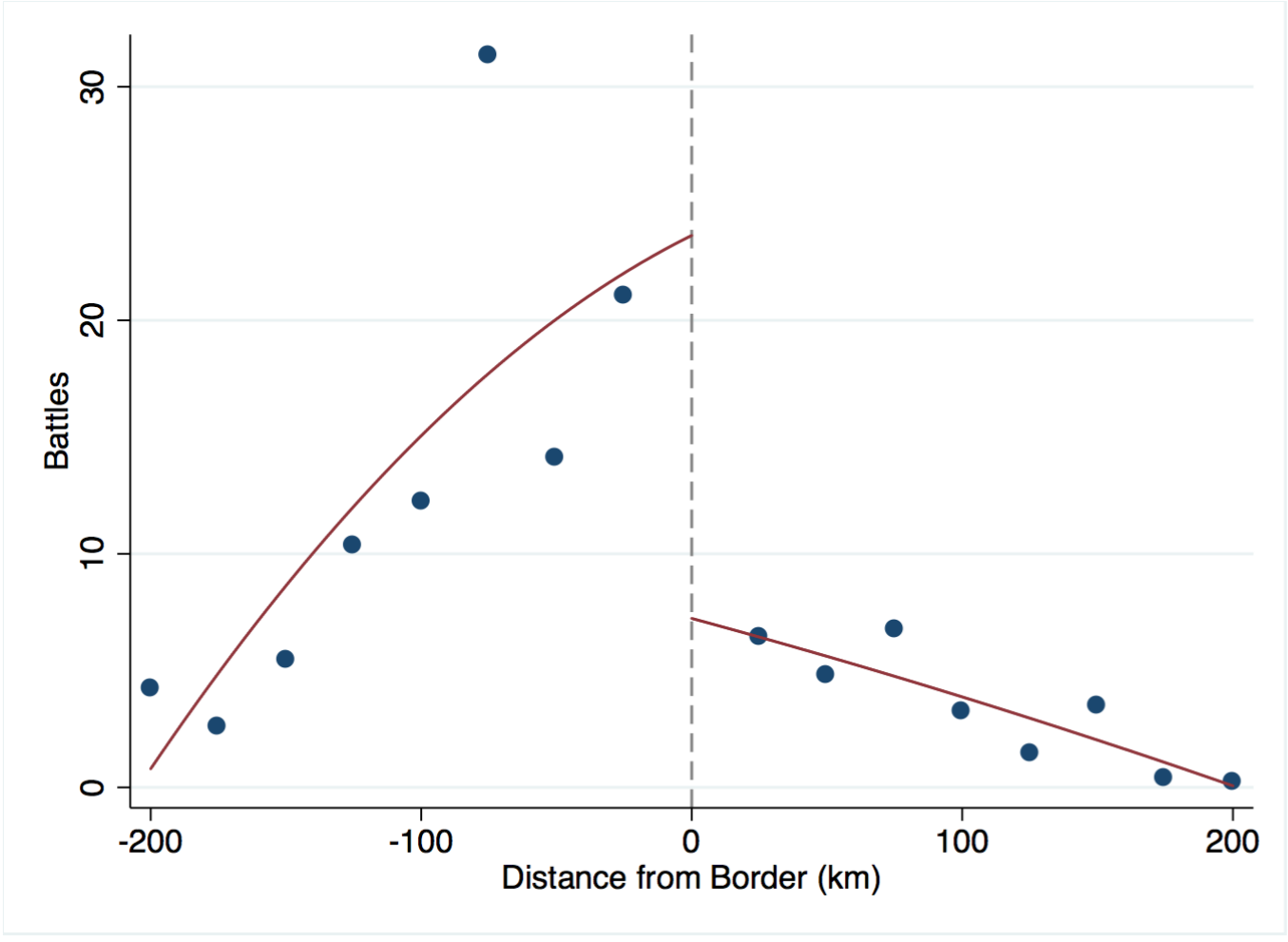
Adjacent Societies



Deadly Conflicts



Number of Battles



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- A 'zero-sum' view of the world
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Social organization:

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- Segmentary lineage systems