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ON THE ORIGINS OF DIRECT RULE:  
ARMED GROUPS AND CUSTOMARY CHIEFS IN EASTERN CONGO

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participants. In addition to the procedure of informed consent that preceded all interviews, there were additional consent forms preceding the most sensitive sections. The research team had considerable experience and their expertise was crucial to ensure that respondents felt safe to discuss sensitive issues. The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

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### **ABSTRACT**

Armed groups routinely delegate domains of rule to village customary chiefs—indirect rule. The larger a chief’s power over the villagers relative to the group’s, the more there is indirect rule. Over time, enabled by the chief’s efforts to legitimize the group, the group expands the taxes they collect themselves in addition to those collected by the chief for them and substitutes the chief for justice administration—converging to direct rule. This suggests indirect rule is a temporary arrangement by uninformed or illegitimate rulers with an inherent agency problem, overcome when rulers acquire enough skill to replace pre-existing political authorities.

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A supplemental appendix is available at <http://www.nber.org/data-appendix/w32722>

# 1 Introduction

Rulers with the power to coerce who aimed to rule over a distant population often delegated aspects of rule to political authorities of the population whose sources of power often encompass domains beyond the simple power to coerce (henceforth, pre-existing political authorities)—indirect rule (Machiavelli, 1981). The choice to rely on indirect rule or instead substitute pre-existing political authorities with a professionalized bureaucracy directly under the command of the ruler has been faced by kings, colonial rulers, or non-state armed groups, and been found to be consequential for economic development (Acemoglu et al., 2014, Banerjee and Iyer, 2005).

When do rulers rely on indirect rule? On the one hand, pre-existing political authorities have better information or legitimacy to induce compliance by the population when the threat of force alone is insufficient. On the other, they can collude with the population against the ruler. This question has been asked through historical and qualitative methods. A challenge to answer this question empirically is that dis-aggregated data on direct vs. indirect rule is scant.

In this paper, we use data collection methods to construct a dis-aggregated panel dataset on armed groups and chiefs in 106 villages of North Kivu, eastern Democratic Republic of the Congo (DRC), allowing us to answer the following sub-questions: How often and what do armed groups delegate to the customary chiefs? When do they choose to do so and when do they impose their own administration? How does that change as the armed group acquires experience?

North Kivu is a well-suited context to examine this question. Hundreds of armed groups have governed populations since the 1990s (Vogel et al., 2021). Customary authority remains an important form of authority (Hoffmann, Vlassenroot and Mudinga, 2020) and hinges on criteria that the population can verify and remember. Alongside the sources of chief power, the diverse ethnic make-up of the eastern DRC and the fact that the ethnic identity correlates with cultural,

customary, and spiritual beliefs, provides a source of chiefs' legitimacy. Rule by a chief not sharing the ethnicity is perceived to be weaker. In part due to war-related population movements, chiefs in some villages have the ethnicity of the majority of the population; in others, they do not.

The main input into our analysis is a yearly village panel containing 249 episodes of armed group control from 1990 to 2016, as well as information on the 306 chiefs that exercised authority in these villages since 1950. Our data contains measures of chief power combining insights from the recent literature on traditional authority in Africa (Henn, 2023, Logan, 2009, Lowes et al., 2023) and details of specific arrangements between armed groups and chiefs regarding taxation, recruitment, legitimation, administration, political power, public services, and regulations.

We first establish that armed group factions ruling in a village frequently delegate the following aspects of village rule to the chiefs: taxation, justice, legitimation activities for the group, administration of the village, recruitment of combatants and, in some cases, political power. While armed organizations vary in the ways in which they delegate their rule, there is significant variation across village governance episodes within armed group, suggesting that the choice of direct vs. indirect rule may reflect a response to local conditions rather than just ideology or style of rule.

Having established that they often delegate rule, we then provide an explanation for why they do so. Guided by a simple framework, we inquire whether delegation may be more likely when the chief has a lot of power over the population. We develop an index of power over land, customary power, administrative power, charisma, managerial skills, and spiritual/supernatural power. We find that, when the chief's power over the population is large, armed groups are more likely to delegate various aspects of rule to the chief (notably justice, administration, legitimation, and political power)—controlling for armed group and year effects. Using predicted chief power based on triangulated “hard” information about the chiefs yields the same results. Furthermore, indirect

rule is more likely when the chief and the villagers are co-ethnic, and when the chief and the group are not co-ethnic. Overall, this means that groups delegate rule when the chief has more power over the villages, and especially so when compared to the power of the group over the villagers.

We then examine what happens to the faction's institutions as a faction governing a village gathers experience in the village since, presumably, the advantage of using the chief may vanish. We find that, regardless of the initial institution, armed group factions' institutions in a village converge to direct rule—controlling for episode and year effects. This is consistent with the factions improving their skills, allowing to overcome the agency problem of governing through the chiefs.

These findings make three contributions. First, a growing literature concerned with fiscal capacity in weak states has shown that local elites (chiefs) can be leveraged to collect taxes (Balán et al., 2022). This begs the question of whether relying on local elites is a global optimum or even sustainable across stages of state development. After all, across history, rulers tended to replace local elites with a bureaucracy (Tilly, 1985) or co-opt them into the state (Newbury, 2000) and there are various reasons why local elites do not have the loyalty to the ruler, unlike a professionalized bureaucracy with political career concerns in the state (Greif, 2008, Myerson, 2015). Our study complements this growing literature by showing that indirect rule appears to be a temporary imperfect arrangement that rulers prefer to avoid. Second, the literature on the legacies of colonial rule has shown how indirect rule has shaped economic development (Acemoglu et al., 2014, Banerjee and Iyer, 2005, Boone, 2003, Kohli, 2004, Lowes and Montero, 2021, Mamdani, 1996, Müller-Crepon, 2020). Our study joins a growing literature outside of economics that uses data (Garfias and Sellars, 2020, Popescu, 2021), by providing empirical evidence based on disaggregated data consistent with the idea that direct and indirect rule emerge as a result of choice by coercion-wielding rulers and consistent with simple economic intuitions. Third, a literature

outside of economics has studied governance during violent conflict (Arjona, 2016, Staniland, 2021). We leverage the nuance in that literature regarding armed actors’ behavior, and suggest that the persistence of conflict can contribute to direct rule, thus to the militarization of society.

## 2 Background: Rural Governance in Eastern DRC

Hundreds of non-state armed groups operate in eastern DRC. Many have deep social roots, having emerged as political projects supported by elite networks or as “bottom up” social movements (Stearns and Botiveau, 2013), and exercise multifaceted influence over rural societies (Hoffmann and Verweijen, 2019, Stys et al., 2020).<sup>1</sup> Some groups have been implanted for decades, yet control is often tenuous and limited to the population centers and main roads (Schouten, 2022), and subject to quick change as a result of military challenges. Because of the political salience of ethno-linguistic identities and their close relation to authority (Muchukiwa, 2006, Verweijen and Vlassenroot, 2015), armed groups can find themselves ruling over populations who consider their rule to be illegitimate. Moreover, traditional chiefs enjoy enduring authority and legitimacy, as a result of several factors from the power conferred to them by their status as custodians of the land in neo-customary land tenure regimes (Boone, 2014), to the enduring recognition of lineage based forms of power, to spiritual dimensions of their power and their leadership role in contexts of acute societal crises (Verweijen and Van Bockhaven, 2020). We henceforth refer to the subset of an armed group that governs in a village as an armed group village faction.

Armed group village factions have relied on both direct and indirect forms of rule.<sup>2</sup> As an

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<sup>1</sup>See the Usalama projects I and II and the Insecure Livelihoods Series for detailed analysis.

<sup>2</sup>As developed in Annex A, coercive rule by violent actors as well as indirect rule through local intermediaries are longstanding templates of rule in eastern DRC, dating back at least to the 19th century when the Rwandan Kingdom forced eastern Congolese entities into vassalage, and Tippu Tipp relied on local chiefs to raise labour and taxes (Northrup, 1988), a mode of rule that was then institutionalized by the colonial state and partially maintained in the post-independence era (Hoffmann, 2021).

example of a foreign-led organization, the Rassemblement Congolais pour la Democratie (RCD), one of the largest rebel groups of the Second Congo War (1998–2003), “seized” the state apparatus in eastern DRC and used it to govern over the provincial capitals, without substantially altering it (Tull, 2003). In rural areas where it faced armed resistance, the RCD sought to assert its control through existing elites, by replacing them or intervening in longstanding customary succession conflicts, or by co-opting them through power-sharing agreements. The RCD relied on local chiefs for labor mobilization (Hoffmann, Vlassenroot and Marchais, 2016, Marchais, 2016). The RCD was largely perceived as a foreign and illegitimate movement and chiefs who collaborated with the RCD were often considered as traitors. As an example of a rather local group, the Mayi-Mayi movement was a popular armed resistance movement that emerged in 1997. One of the largest factions, the Mayi-Mayi Padiri, established the *État-Major Politico-Militaire* (Politico-Military headquarters) and an *administration des Forêts* (Forest Administration) in the region of Bunyakiri, in South Kivu (Hoffmann, 2015, Morvan, 2005), combining direct and indirect forms of administration through appointed administrators, chiefs, and religious leaders who were subjected to ideological training (Morvan, 2005, p.57). The group set up a system of taxation to finance its war effort, with some sectors of the economy coming under direct control by the movement, while others left to more decentralized forms of taxation through intermediaries. For example, while the regulation and taxation of the mining sector was highly centralized, with the group deploying soldiers to each mine to collect taxes for the headquarters, the collection of household taxes—known as “war effort” or ration—was usually delegated to the chiefs. Since the end of second Congo War in 2003, several other groups had significant governance capacity (Congo Research Group, 2020, Stearns, 2023). This variation, which often varies across villages, provides the backdrop for our analysis.

### 3 Measuring Chiefs' Power and Armed Group Institutions

The sample is from 106 villages in the five largest districts of North Kivu: Masisi, Rutshuru, Walikale, Beni and Lubero.<sup>3</sup> Figure F.1 in the Appendix shows the map. The data collection, implemented in June-December 2015, gathered recall data, replicating the strategies used in Sánchez de la Sierra (2020) and Marchais (2016). In addition, we add the following two components.

*Hard measures of chiefs and subjective measures of chief power for all chiefs since 1950:*<sup>4</sup> Hard information about chiefs included start and end of reign, birth year, whether the chief was related to the regional chief of chiefs, whether he was related to the previous chief (hence following the custom). In addition, local customs consider chiefs to be the custodians of the land, entitled to levy contributions in exchange for usufruct over land granted to their subjects. Thus, we also measure the percentage of the land of a given village or entity over which a given chief exercises customary authority. Given the role of the supernatural in the authority of a chief, we also report the number of active witches in the reign of a chief.

In addition to these hard measures, we also gathered the following direct measures of chief power, some of which are inherently subjective, and thus were gathered through measuring perceptions of households in private: (i) given that customary recognition varies substantially in eastern DRC, that chiefs' tenures are often contested, and that political conflicts over customary authority involving competing claims are numerous in eastern DRC (Hoffmann, Vlassenroot and

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<sup>3</sup>Villages were considered for random sampling if they had a mine or cash-crop production.

<sup>4</sup>Higher levels of traditional authority, such as the *groupement* chiefs and *Mwamis*, also exist in some regions. We focus on village chiefs because they are present in every location and manage daily governance, and often belong to the lineages—and thus customary authority—of higher level chiefs. Not all chiefs are *customary* chiefs. The colonial state incorporated chiefs into the state administration in order to rule over rural populations, collect taxes, and mobilize labor. When no chiefs existed or when chiefs were reluctant to collaborate, they appointed new chiefs or replaced existing ones. As a result, some administrative chiefs in eastern DRC are not recognized by customary traditions, but have been appointed by the colonial state and have kept their administrative status in the post-colonial era. Moreover, even when chiefs are recognized by customary traditions, they might be unpopular for various reasons, including incompetence, corruption or collaboration with rulers considered to be illegitimate.

Mudinga, 2020), the expert survey establishes whether or not chiefs' tenures are sanctioned by customary traditions and rituals (including whether there was an appropriate enthronement ceremony and whether the outcome was confirmed by the ancestors of the community), whether the population was consulted, as well as the population's perspective on whether a chief is regarded as customarily legitimate; (ii) given that chiefs can have varying levels of administration competence, we measure households' perception of chiefs' skills in relation to capacity to mobilize resources, to persuade the population of ideas, and their management ability; (iii) given that chiefs' sources of power also include traditional forms of power such as charisma and the use of the threat of force, our survey also provides a grade for the intensity of the chief's charisma as well as severity of the threat of force, as reported by the households in private; (iv) given that in eastern Congo's customary traditions, the role of the chief is to protect the population and guide their fortune and to protect them using supernatural forces, we gather chiefs' spiritual power to protect the population. Notably, the chief can intercede with the spiritual world and deploy various forms of spiritual or "supernatural" protection (Bishikwabo, 1980, Burume, 1993). Given the subjective nature of these beliefs, the household data assesses whether the population believes a chief to have various supernatural powers. The dimensions of supernatural power that we measure were decided as the outcome of preparatory qualitative research in 2015: power to protect from theft, help in hunting, help in mining activities, improve agriculture, control rain and thunder, control bridges, as well as their power to heal.<sup>5</sup> (v) given the importance of face to face interactions in citizen intrinsic motivation in this type of personalized governance, we also ask respondents how many requests they made to the chief per month and how many conversations they had in private.

*Measures of armed group village faction and chief institutional arrangements since 1990:* for

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<sup>5</sup>There are many differences in the spiritual and religious traditions in which such "spiritual" power is vested and in the types of powers that exist, as well as in chiefs' capacity to summon and deploy such powers.

each armed group governance episode, we collected data on the administrations that armed groups set up in the study villages. We define an armed group episode as an episode of military control over an entity (village or neighborhood) by an armed actors that lasts for a period of at least one month. We observe 249 armed group episodes in 106 villages by 41 different armed groups, of varying duration. This included yearly data on the taxes that armed groups levied, including the types of taxes, their amount, their modes of collection. It also included data on whether and how armed groups enforced taxation, whether they intervened in the administration of justice, and whether they set up economic monopolies (of alcohol and cigarettes in particular). We also collected data on how the recruitment of soldiers, porters, and assistants was carried out. Notably, we gathered the deliverables expected by the group (collection of taxes, labor mobilization, information gathering, spiritual or religious support), the perceived performance of the chiefs on these dimensions.

## **4 Three Facts About Indirect Armed Group Rule**

### **4.1 Armed Groups Routinely Delegate Rule Areas to Chiefs (Fact 1)**

We first explore the frequency with which armed group factions governing in a village for a given period of time delegate aspects of their rule to the village customary chiefs. Table 1, Panels A and B, provide summary statistics for all armed groups episodes, grouped by type of group, of the extent to which the armed group faction of the given episode delegated rule to the chief (Panel A), and the extent to which they implemented domains of rule themselves directly (Panel B), for each domain of indirect rule and of direct rule. Taxation, justice, and legitimation were collected yearly, thus the table reports the initial year; the remaining variables were collected at the episode

level. For each domain, we computed a standardized index using the domain variables.<sup>6</sup> There are 249 armed group village episodes, on average lasting 4 years each.

The panel provides two insights. First, despite the fact that armed group factions have the guns, they frequently delegate various aspects of rule to the chiefs, including taxation, justice administration, legitimation (chiefs conducting sensitization campaigns with the explicit goal to increase the group’s legitimacy), administration of the village, or even political power in the village.<sup>7</sup> This delegation as indirect rule in a given domain can co-exist with direct rule in the same domain (more intense rule) as well as with direct rule in other domains (including, for taxation under direct rule, levying of toll taxes, mill taxes, market taxes, or forced debt directly; for direct legitimation, campaigns to hunt witches in order to prevent the rise of illegitimacy; for direct administration of the village, the use of administrative documents, of a constitution, of contracts, of written communication and the use of a seal). That is, direct and indirect rule is a complex decision involving multiple dimensions and both can co-exist in any dimension.

Second, while the extent to which rule is delegated as well as the specific domains of rule that are delegated varies significantly across group type suggesting armed groups’ styles (or ideology), there is substantial variation within group type (across episodes). In terms of style, foreign groups tend to disregard more the authority of the chief, while they are more dependent on the chief efforts to increase their legitimacy and to recruit fighters—both of which rely particularly on legitimacy, something foreign groups lack; most groups tend to delegate the taxation of the head tax to the

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<sup>6</sup>In some cases, additional identical variables found in other places of the survey were added to the computation of the standardized indices. Specifically, for indirect rule taxation, we use two additional variables providing the same result, asked differently about whether a head tax was organized by the chief; for recruitment, we use two other variables asking whether the chief recruited for the group and whether the chief encouraged recruitment for the group. The inclusion or exclusion of these variables have no effect on the analysis. We also computed a standardized index of indirect rule and of direct rule using the indices of each domain. Table F.1 shows it for all armed groups in the sample, providing evidence that the variation is large across groups and that groups display significant overlap in terms of episode years.

<sup>7</sup>In the case of armed groups, *sensibilisation* usually means in the DRC the public meetings carried out to convince populations of the objectives, ideologies, and legitimacy of armed groups.

Table 1: Armed Groups Routinely Delegate Rule Areas to Chiefs (Fact 1)

	All	Popular militia	Foreign groups	State forces	Others groups
Number of Episodes	249	73	118	47	11
Average Length	4.24	2.62	4.36	6.98	2.18
<b>Panel A: Indirect Rule</b>					
Taxation (standardized index)	0.00	0.35	0.31	-1.18	-0.56
<i>Head tax collection organized by chief</i>	0.68	0.81	0.82	0.19	0.41
Justice (standardized index)	0.00	-0.05	-0.26	0.55	0.78
<i>Justice administration by chief</i>	0.23	0.21	0.13	0.45	0.55
Legitimation (standardized index)	0.00	-0.37	0.26	0.02	-0.41
<i>Legitimation campaign by chief</i>	0.25	0.10	0.35	0.26	0.09
Administration (standardized index)	0.00	-0.24	-0.38	1.22	0.47
<i>Village administration by chief</i>	0.26	0.16	0.10	0.77	0.45
Recruitment (standardized index)	0.00	-0.41	0.49	-0.52	-0.32
<i>Who recruited? Chief</i>	0.16	0.03	0.30	0.02	0.09
Political (standardized index)	0.00	-0.14	-0.34	1.24	-0.49
<i>Did the chief hold political power?</i>	0.20	0.14	0.06	0.69	0.00
<b>Indirect rule standardized index</b>	0.00	-0.34	0.05	0.54	-0.41
<b>Panel B: Direct Rule</b>					
Taxation (standardized index)	0.00	0.04	0.47	-1.10	-0.58
<i>Group levies head tax</i>	0.72	0.87	0.87	0.17	0.50
<i>Group levies toll tax</i>	0.50	0.41	0.74	0.09	0.27
<i>Group levies mill tax</i>	0.18	0.12	0.27	0.07	0.09
<i>Group levies market tax</i>	0.61	0.59	0.80	0.21	0.45
<i>Group levies forced debt</i>	0.11	0.20	0.10	0.01	0.00
Justice (standardized index)	0.00	0.05	0.26	-0.55	-0.78
<i>Group administers justice</i>	0.77	0.79	0.87	0.55	0.45
Legitimation (standardized index)	0.00	0.87	-0.32	-0.67	0.49
<i>Legitimation campaign by group</i>	0.41	0.47	0.47	0.16	0.50
<i>Witch hunts</i>	0.17	0.32	0.14	0.01	0.18
Administration (standardized index)	0.00	-0.62	0.48	-0.21	-0.19
<i>Group administers village</i>	0.74	0.84	0.90	0.23	0.55
<i>Group has written admin docs</i>	0.74	0.51	0.90	0.72	0.64
<i>Group has written constitution</i>	0.29	0.14	0.43	0.19	0.27
<i>Group has written contracts</i>	0.35	0.15	0.53	0.19	0.45
<i>Group writes communication</i>	0.56	0.22	0.75	0.64	0.45
<i>Group has seal</i>	0.67	0.38	0.86	0.70	0.55
Recruitment (standardized index)	0.00	0.33	0.01	-0.66	0.51
<i>Who recruited? Group</i>	0.56	0.73	0.57	0.23	0.82
Political (standardized index)	0.00	0.17	0.18	-0.95	0.87
<i>Group has political power</i>	0.57	0.65	0.66	0.10	1.00
<b>Direct rule standardized index</b>	0.00	0.13	0.39	-1.27	0.13

*Notes:* Summary statistics of armed group episodes, aggregated into four types of armed groups found in our data. *Popular militia* includes regional militias such as different Mayi-Mayi groups or Raia Mutomboki; *Foreign forces* includes armed groups that are supported or coordinated by foreign groups (such as RCD, CNDP, and M23) or foreign rebel groups and their allies (FDLR, Nyatura); *State forces* includes the Congolese army and police; *Other groups* includes all other groups. For simplicity, we exclude the variables economic regulation and size of the group in the village, while they produce consistent results across the paper for compactness. We include them in the computation of the indices.

chief (although in different degrees). In terms of variation within armed group, the fraction of episodes in which a given direct or indirect rule instrument is used is never 100% nor 0%.

This suggests that accounting for group average tendency to delegate rule is important to analyze the effect of material payoffs on the choice of indirect rule, there is significant variation within group across episodes. We exploit this variation in the analysis that follows.

## **4.2 Greater Power of Chiefs Results in More Indirect Rule (Fact 2)**

In this section, we attempt to provide an explanation for why village armed group factions choose indirect rule in some cases. To organize the analysis, consider, as benchmark, the canonical model of Tirole (1986). A principal (here, the ruler) wants an agent (here, the citizens) to exert effort that is privately costly to the agent but whose output benefits the principal. When the agent has private information, the agent will get an information rent, diminishing the payoff of the principal. Supervisors (here, a chief) may have hard information about the agent's effort and the state of the world. The principal can offer contracts to the supervisor and the agent. A problem is that the agent could offer a bribe to the principal in exchange for her silence—collusion—hence, the supervisor needs to be given incentives too. Such “collusion-proof” contract can be costly for the principal since it must provide incentives to the supervisor not to accept a bribe from the agent.

This suggests one simple intuition for the choice of direct or indirect rule (without or with supervisor): if the supervisor (here, the chief) is better informed, indirect rule should in principle be more profitable to the principal than simply offering a contract to the agent based on the imperfect information held by the principal; hence, when the supervisor is better informed, she is more likely to be offered a contract by the principal to reveal information about the agent's effort. The tension arises because the supervisor (here, the chief) needs to be given a contract that is collusion-proof, and this is costly. Thus, when if the principal has enough information,

even if it is not nearly as good as that of the supervisor, the principal may choose to circumvent the supervisor (direct rule). Guided by this simple intuition, we examine the relationship between the power of a chief over the village population and the choice of armed group faction's rule.

We begin our analysis by characterizing chief power. Table 2, Panel A, presents summary statistics of hard measures of chief power for the average chief. Chiefs started their reign in 1989 on average, and the average reign lasted 15 years. The mean year of birth of a chief is 1953. 69% were related to the previous chief (hence respecting customary succession rules and hence more likely to hold legitimacy), 4% were related to the chief of chiefs in the region (mwami), whereas 84% were considered to be customary owner of the land.

Panel B then shows the full set of measures of chief power. Overall, 85% of chiefs followed customary rules of determining their authority, 82% were from the ruling family, 88% followed the customary and appropriate enthronement ceremony, where 82% were confirmed by the dead ancestors of the community, and 85% were enthroned consulting the population. Chiefs had high grades for mobilizing and “sensibilisation” ability, charisma, and reasonable grades for management skills and threat of force. In terms of supernatural powers, chiefs tended to have reasonably high powers (and at least much higher than a non-believer would ascribe): the mean fraction of respondents who reported their chief to have the power to control the rain, protect from theft, help hunt, help mining, improve cultivation, control thunder, bridges or harvest, and have the power to heal was often close to 50%.<sup>8</sup> Overall, 90% of chiefs were liked by the start of their reign. Chiefs received numerous requests per villager per month, and held frequent private meetings with the villagers. To construct a measure of chief power, we conduct factor analysis using the 23 variables

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<sup>8</sup>Appendix Section D discusses the correlations between individual characteristics and supernatural beliefs. Figure F.2 shows that the perceived supernatural power of chiefs declined steadily in the period, consistent with the secularization trend in eastern DRC and that it correlates positively with management skill.

Table 2: Quantifying Chief Power

	Mean	Factor	Uniqueness
<i>Panel A: Chief Characteristics</i>			
Start of reign	1989	-0.83	0.32
Length of reign	15.21	0.76	0.42
Birth Year (Mean)	1953	-0.66	0.57
Related to previous chief (Mode)	0.69	0.59	0.65
Related to mwami (Mode)	0.04	0.06	1.00
Traditional owner of land? (Mode)	0.84	0.58	0.67
How many witches (Mean)	5.31	0.57	0.67
<i>Panel B: Chief Power</i>			
Customary authority {0,1}	0.85	0.72	0.48
From the ruling family {0,1}	0.82	0.72	0.48
Enthronement ceremony {0,1}	0.88	0.66	0.56
Confirmed by spirits {0,1}	0.82	0.72	0.49
Was the population consulted {0,1}	0.85	0.49	0.76
Mobilizing ability {0,1,2}	1.79	0.64	0.59
Sensibilizing ability {0–2}	1.77	0.65	0.58
Management skills {0,1,...,10}	6.82	0.49	0.77
Threat of force {0,1,...,10}	6.29	0.68	0.53
Charisma {0,1}	0.85	0.60	0.64
Power to control rain {0,1}	0.56	0.87	0.24
Power to protect from theft {0,1}	0.57	0.87	0.24
Power to help hunt {0,1}	0.51	0.87	0.25
Power to help mining {0,1}	0.41	0.81	0.35
Power to improve cultivation {0,1}	0.39	0.85	0.27
Power to control thunder {0,1}	0.38	0.80	0.36
Power to control bridges {0,1}	0.25	0.65	0.58
Power to control harvest {0,1}	0.36	0.83	0.30
Power to heal {0,1}	0.41	0.84	0.29
Liked at start of reign {0,1}	0.90	0.37	0.87
Requests per month at start of reign (#)	2.19	-0.28	0.92
Private conversations per month (#)	7.08	0.07	1.00

*Notes:* This table shows the mean, factor loading, and uniqueness for chief hard characteristics (Panel A) and subjective measures of chief power (Panel B).

of Panel B and use the predicted factor using all variables as our index of chief power.<sup>9</sup>

Using this measure of chief power, we can now ask whether the armed group factions are more likely to choose indirect rule when the chief is powerful. We estimate the following equation:

$$IndirectRule_i = \alpha + \beta_1 Power_i^{C,V} + \theta_{AG} + \eta_t + \epsilon_V, \quad (1)$$

where  $AG, V, C, i$  index armed group, village, chief, and armed group faction village governance episode respectively, and the sample is restricted to the first year of the episode. We include armed organization fixed effects (there are 41),  $\theta_{AG}$ , to account for the fact that certain organizations have different strategies and objectives for their rule. We also include year fixed effects,  $\eta_t$ , and cluster standard errors at the village level.

Table 3, Panel A, reports the estimates. In Columns (1)-(3), the dependent variables are the indices of indirect rule, of direct rule, and the gradient of indirect rule calculated as the difference between the indirect rule and the direct rule indices. Across armed group faction village episodes, within village, within episode start year, more powerful chiefs are associated to more indirect rule through the chief. Columns (4)-(9) decompose this effect by showing the gradient of indirect rule for each domain of rule: Columns (4)-(6) do so for the measures that are time-invariant within episode (and hence the gradient is computed for the average of the episode), and Columns (7)-(9) for those that vary by year. Powerful chiefs are associated to more indirect rule as they are more likely to administer justice during an armed group rule episode, to conduct sensitization campaigns to legitimize the group for the population, and to administer the village, than less powerful chiefs. This is consistent with the simple economic intuition that chiefs who wield more

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<sup>9</sup>Since the high factor loading of supernatural variables can be in part due to the fact that they are various, we also replicate in Table F.2 the factor analysis using supernatural power overall assessment instead of each dimension of supernatural power. The factor loading is naturally smaller but remains quite high, .651.

legitimacy and thus power constitute better suited intermediaries to run domains of rule that require legitimacy—precisely those for which the threat of force is insufficient or illegitimate.

A concern is that these measures of chief power are subjective. To address this issue, Panel B uses instead the predicted chief power factor from a regression of chief power factor on the hard variables of chiefs.<sup>10</sup> The results in Panel B confirm that chief power leads to more indirect rule in justice, legitimation, administration, and even political power.<sup>11</sup>

If the power of chiefs matters through their legitimacy, then chiefs who have, comparatively, more legitimacy than the armed group over the villagers would be those who run indirect rule. In Panel C, we present the estimates from Equation 1, replacing the explanatory variable predicted chief power variables with indicators of coethnicity,  $Coethnic_i^{C,V}$ ,  $Coethnic_i^{C,AG}$  and  $Coethnic_i^{AG,V}$ . The variables  $Coethnic_i^{C,V}$ ,  $V$ ,  $Coethnic_i^{C,AG}$ ,  $Coethnic_i^{AG,V}$  are indicators taking value one if chief  $C$  is from the same ethnic background as the majority of the population in village, if chief  $C$  is from the same ethnic background as the majority of the members of armed group  $AG$ , and if the majority of the members of armed group  $AG$  are from the same ethnic background as the majority of the population in village  $V$ , respectively. When chiefs who are co-ethnic with the villagers (and thus less likely to be illegitimate) there is more relative indirect rule for the administration of justice, of the village, and of of political power. Conversely, when the chief and the armed group are co-ethnic (and thus, for whom the chief has no legitimacy advantage), there is less relative indirect rule in the domains of justice administration, but also of taxation.

In sum, chiefs that have an advantage to govern compared to the armed group aiming to govern result in less direct and more indirect rule. This would be predicted if the type of rule is

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<sup>10</sup>Table F.3 presents the estimates. The regression also allows to validate our measure of chief power: chiefs who respect the succession rule and who are traditional owner of the land have a higher chief power factor.

<sup>11</sup>Table F.4 shows that the effect is driven by chiefs who follow succession rules and are owners of the land. Table F.5 shows that villages with powerful chiefs are equally likely to be controlled by armed groups, assuaging concerns of endogeneity. Table F.6 shows that including state forces preserves the results.

Table 3: Greater Power of Chiefs Results in More Indirect Rule (Fact 2)

<b>Panel A: Chief Power</b>				<i>Dependent Variables:</i>						<b>Intensity Rule (10)</b>
<b>Indirect Rule (1)</b>	<b>Direct Rule (2)</b>	<b>Indirect Gradient (3)</b>	Indirect Rule Gradient (Indirect – Direct), by Domain							
			Taxation <sup>‡</sup> (4)	Justice <sup>‡</sup> (5)	Legit. <sup>‡</sup> (6)	Admin (7)	Recruit. (8)	Political (9)		
Chief Power	0.266* (0.149)	-0.178 (0.115)	0.444* (0.240)	-0.102 (0.103)	0.690** (0.282)	0.269* (0.148)	0.473*** (0.176)	0.0490 (0.174)	0.252 (0.218)	0.0875 (0.117)
Observations	108	108	108	112	112	112	112	112	108	108
$R^2$	0.428	0.399	0.394	0.484	0.490	0.650	0.553	0.442	0.370	0.478

<b>Panel B: Predicted Chief Power</b>				<i>Dependent Variables:</i>						<b>Intensity Rule (10)</b>
<b>Indirect Rule (1)</b>	<b>Direct Rule (2)</b>	<b>Indirect Gradient (3)</b>	Indirect Rule Gradient (Indirect – Direct), by Domain							
			Taxation <sup>‡</sup> (4)	Justice <sup>‡</sup> (5)	Legit. <sup>‡</sup> (6)	Admin (7)	Recruit. (8)	Political (9)		
Predicted Chief Power	0.524** (0.214)	-0.476*** (0.142)	1.000*** (0.308)	0.0365 (0.194)	1.216*** (0.419)	0.478* (0.241)	0.629** (0.289)	0.0767 (0.264)	0.689** (0.322)	0.0483 (0.191)
Observations	102	102	102	104	104	104	104	104	102	102
$R^2$	0.483	0.445	0.464	0.470	0.472	0.676	0.531	0.464	0.439	0.478

<b>Panel C: Coethnicity</b>				<i>Dependent Variables:</i>						<b>Intensity Rule (10)</b>
<b>Indirect Rule (1)</b>	<b>Direct Rule (2)</b>	<b>Indirect Gradient (3)</b>	Indirect Rule Gradient (Indirect – Direct), by Domain							
			Taxation <sup>‡</sup> (4)	Justice <sup>‡</sup> (5)	Legit. <sup>‡</sup> (6)	Admin (7)	Recruit. (8)	Political (9)		
Coethnic Village-Chief	0.319 (0.243)	-0.474*** (0.164)	0.793** (0.321)	0.271 (0.210)	0.909*** (0.334)	-0.217 (0.312)	0.590** (0.246)	-0.0495 (0.351)	0.624** (0.301)	-0.155 (0.262)
Coethnic Group-Chief	-0.437** (0.200)	0.352** (0.144)	-0.788*** (0.287)	-0.428*** (0.161)	-0.977*** (0.335)	-0.363 (0.308)	-0.262 (0.179)	0.131 (0.280)	-0.368 (0.271)	-0.0849 (0.197)
Observations	128	128	128	135	135	135	135	135	128	128
$R^2$	0.326	0.433	0.400	0.467	0.413	0.619	0.579	0.326	0.324	0.305

*Notes:* Panels A–C show the effects of chief power on the decision of armed groups to implement direct or indirect rule. The analysis is at the armed group episode level, and the dependent variable are indices for the governance arrangements from the first year of a group’s occupation of a village. For the dependent variables listed in Columns (4)–(6), those are based on variables collected yearly, hence we use the first year of the episode; for those in Columns (7)–(9), those were collected at the level of an episode, we thus use the episode measure. Panels A and B present estimates of Specification 1 and has the (predicted) chief power estimated in Table 2 as the explanatory variable. The Indirect Rule (Column 1) and Direct Rule (Column 2) indicators, as well as their difference (Column 3), the difference by governance domain (Columns 4–9), and their sum (Column 10) are the outcome variables. Panel C presents estimates of Specification 1 where the explanatory variables are indicators for whether the chief and armed group, and chief and majority of village share the same ethnicity. All specifications include armed group and year fixed effects. Standard errors, clustered at the village level, are shown in parentheses. \*, \*\*, \*\*\* indicate that the corresponding coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

chosen by the group to maximize the rent extracted from the village: armed groups overcome the agency problem with the chief by replacing the chief when the armed group has a sufficiently good technology that its bureaucracy can substitute the chief and achieve sufficiently large extraction.

### 4.3 Ultimately, Groups’ Institutions Converge to Direct Rule (Fact 3)

If armed groups learn over time how to govern or acquire legitimacy and if governing through the chiefs is hampered by the cost of a collusion-proof contract to prevent chief-villager collusion, indirect rule could give way to direct rule. To see this, we estimate the following equation in OLS using all years and the sub-indices of direct and indirect rule that vary across years:

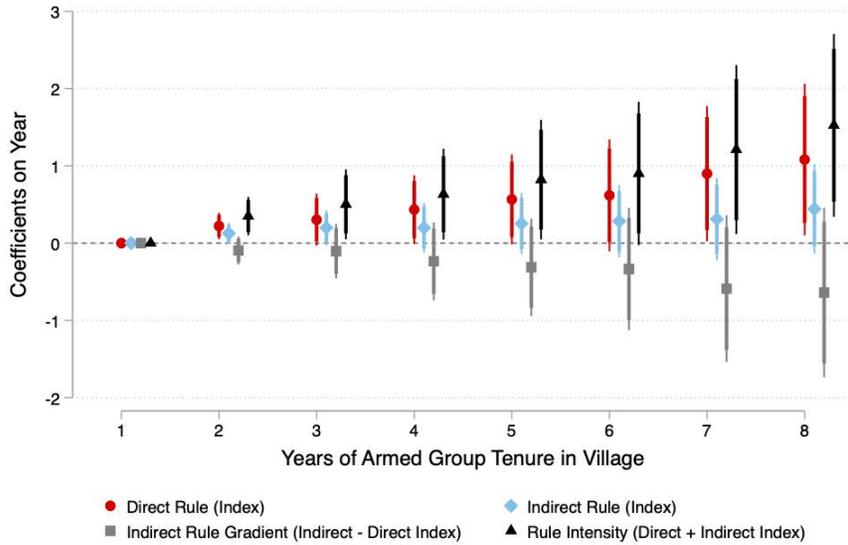
$$IndirectRule_{i,t} = \alpha + \sum_{j=1}^{j=k} \beta_j \mathbf{1}_{i,j} + \psi_{i,t} + \eta_t + \epsilon_V \quad (2)$$

where  $\mathbf{1}_{i,j}$  is an indicator taking value 1 if the armed group has been in the village for  $j$  years. We include armed group episode fixed effects,  $\psi_{i,t}$ , to account for any unobserved constant heterogeneity at the group level that may correlate with institutional choice, and year fixed effects,  $\eta_t$ , to account for regional trends that may correlate with armed groups tenure. Panels A-D present the year coefficients along with their 90 and 95 % confidence intervals for the overall indirect rule, direct rule, gradient and rule intensity indices, for: taxation, justice, legitimation, and the standardized index of all these domains, respectively.

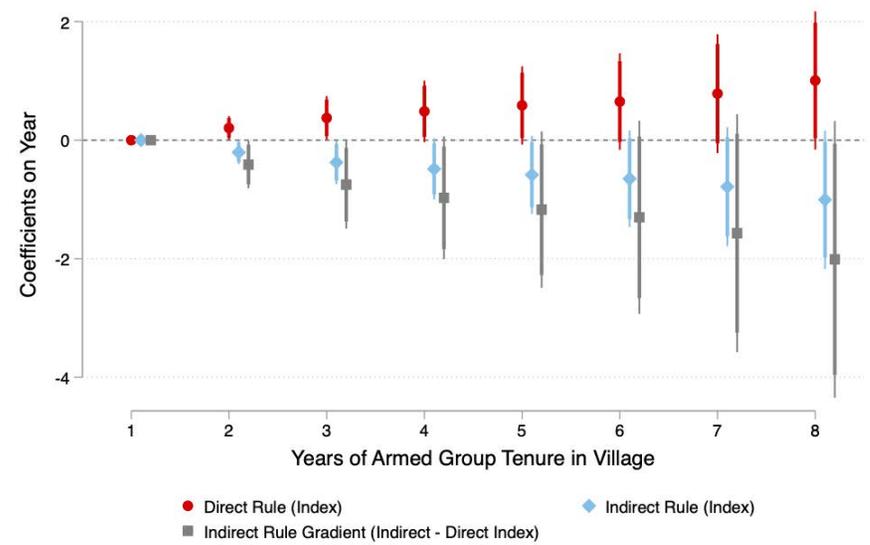
Panel A shows that, over time, the delegation of taxation to the chief mildly increases but, alongside taxation by the chief, armed groups increase direct rule in the domain of taxation. This effect is driven by progressively introducing the taxation instruments levied directly by the groups: toll fees, mill taxes, market taxes, and forced debt. This expansion of direct rule amounts to a

Figure 1: Ultimately, Armed Groups' Institutions Converge to Direct Rule (Fact 3)

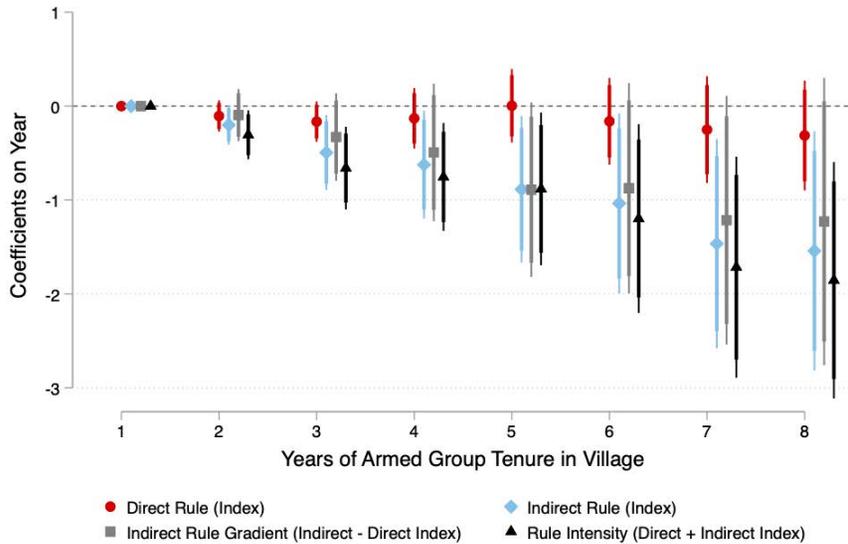
Panel A: Domain Taxation



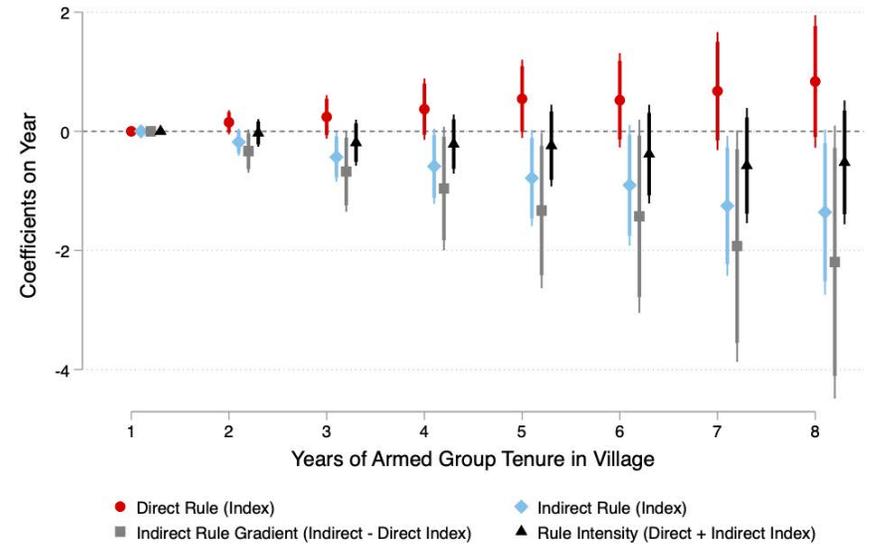
Panel B: Domain Justice



Panel C: Domain Legitimation



Panel D: All Time-Varying Domains of Rule



Notes: This figure shows the yearly coefficients from Equation 2. The analysis is at the village-year level and all years when a village is occupied by an armed group are included. In Panels A-D, the dependent variables are the corresponding indices of taxation, justice administration, legitimation, and all these three domains pooled together, respectively.

mild decrease in the indirect rule gradient, driven by this expansion of armed group taxes. Overall, these changes result to an increase in rule intensity, as both direct and indirect rule increases in the domain of taxation, corresponding to an increase in fiscal capacity and in taxes collected driven by those levied directly by the group. This increase is consistent with an increase in legitimacy and learning by the group, allowing them to expand their taxation vector while not implying that the optimal tax collected by the chief is lower. It also suggest that, despite there being taxation by the chief in the initial years, taxation is constrained by limited fiscal capacity which in turn is determined by the armed group's own legitimacy and information.

Panel B shows a nuanced distinct increase in direct rule in the domain of justice. In that case, the administration of justice is simply taken over by the armed group from the chief. Since in each year, it is either the chief or the armed group who administers justice, the decrease in indirect rule is mirrored by an increase in direct rule (and we thus do not report the index of rule intensity, constant by construction). Overall, this implies a decrease in the indirect rule index reflecting, rather than an expansion in the extent of justice administration, simply a centralization of legal capacity in the hands of the group as the group gains experience in the village. While legal capacity may stay constant, increase or decrease depending on the information held by the group and its enforcement, the ruler has more power over justice administration.

Panel C shows a drastic and continuous decrease in the extent to which the chief conducts sensitization campaigns designed to help the group increase its legitimacy. The direct rule index remains constant, indicating that the group does not begin to do campaigns themselves. This suggests that, lacking legitimacy in the village at the beginning of a governance episode, armed groups tend to rely on campaigns held by the chief, who does have legitimacy, to validate the armed group and provide them with legitimacy. As the returns to legitimation efforts flatten,

those campaigns decrease, coinciding with the armed group expanding the set of taxes they collect directly as well as the taking of justice in their own hands.

These patterns are summarized in Panel D. Overall, direct rule increases, and indirect rule decreases, leading to a decrease in the indirect rule index while rule intensity remains constant. However, we note that the permanence of rule intensity is an artifact of including chief legitimization campaigns in the index of indirect rule. If, instead of a domain of rule, legitimization is analyzed as an input into rule, this implies that rule intensity increases, driven by an expansion of fiscal capacity by the armed group, alongside a take-over of administration of justice by the group.<sup>12</sup>

In sum, this section has shown that, over time, armed groups converge to direct rule, through expanding taxation in the hands of the armed group without substitution taxation by the chief, and taking the administration of justice in their own hands. This transition appears to be in part enabled by the initial efforts of the chiefs to legitimize the armed group—and potentially through learning. These results are consistent with indirect rule being an inefficient arrangement due to the agency problem of having to motivate chiefs, whose loyalty to the armed group is limited. However, by using their power to coerce the chiefs to induce campaigns to legitimize the group (and potentially by acquiring information about the village through learning) armed groups choose to bypass the chief for the collection of taxes and to circumvent the chief for the administration of justice once their own skill improves over time.

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<sup>12</sup>Table F.7 shows that the result is preserved estimating a linear relationship between the indices and group tenure in years, as well as whether state forces are included in the analysis.

## 5 Conclusion

These results suggest that coercion-wielding organizations who aim to govern populations, even though they have the guns, do not rule in a vacuum: there are pre-existing political institutions already. Enlisting pre-existing political authorities into “indirect rule” is a temporary solution when they have power. Over time, however, armed groups develop fiscal capacity expanding the taxes they directly collect and legal capacity by substituting the chiefs’ administration of justice. Our results potentially provide exportable insights to the change induced during colonial institutions as a result of direct rule contexts of rulers aiming to design imperial institutions (Boone, 2003).

## References

- Acemoglu, Daron, Isaías N Chaves, Philip Osafo-Kwaako and James A Robinson. 2014. Indirect rule and state weakness in Africa: Sierra Leone in comparative perspective. In *African Successes, Volume IV: Sustainable Growth*. Chicago: University of Chicago Press pp. 343–370.
- Arjona, Ana. 2016. *Rebelocracy*. Cambridge University Press.
- Balán, Pablo, Augustin Bergeron, Gabriel Tourek and Jonathan L. Weigel. 2022. “Local Elites as State Capacity: How City Chiefs Use Local Information to Increase Tax Compliance in the Democratic Republic of the Congo.” *American Economic Review* 112(3):762–97.  
**URL:** <https://www.aeaweb.org/articles?id=10.1257/aer.20201159>
- Banerjee, Abhijit and Lakshmi Iyer. 2005. “History , Institutions , and Economic Performance : The Legacy of Colonial Land Tenure Systems in India.” *American Economic Review* 95(4):1190–1213.

- Bishikwabo, Chubaka. 1980. “Le Bushi au XIXe siècle: un peuple, sept royaumes.” *Revue française d’histoire d’outre-mer* 67(246-247):89–98.
- Boone, Catherine. 2003. *Political Topographies of the African State: Territorial Authority and Institutional Choice*. Cambridge: Cambridge University Press.
- Boone, Catherine. 2014. *Property and Political Order in Africa: Land Rights and the Structure of Politics*. New York: Cambridge University Press.
- Burume, Louis Lwigulira. 1993. *Histoire et culture des Bashi au Zaïre: “six derniers règnes” antérieurs à 1980*. Kinshasa: Centre Protestant d’editions et diffusion.
- Congo Research Group. 2020. For the Army, With the Army, Like the Army. The Rise of Guidon Shimiray and the NDC–Rénové in the Eastern Congo. Technical report Center on International Cooperation, New York University.
- Garfias, Francisco and Emily Sellars. 2020. “From Conquest to Centralization: Domestic Conflict and the Transition to Direct Rule.” *The Journal of Politics* 83.
- Greif, Avner. 2008. Towards a Political Economy of Implementation. In *Institutions and Economic Performance*, ed. Elhanan Helpman. Cambridge, MA: Harvard University Press pp. 17–63.
- Henn, Soeren J. 2023. “Complements or Substitutes? How Institutional Arrangements Bind Traditional Authorities and the State in Africa.” *American Political Science Review* 117(3):871–890.
- Hoffmann, Kasper. 2015. Myths Set in Motion: The Moral Economy of Mai Mai Governance. In *Rebel Governance in Civil War*, ed. Ana Arjona, Nelson Kasfir and Zachariah Mampilly. New York: Cambridge University Press pp. 158–179.

- Hoffmann, Kasper. 2021. "Ethnogovernmentality: The making of ethnic territories and subjects in Eastern DR Congo." *Geoforum* 119:251–267.
- Hoffmann, Kasper and Judith Verweijen. 2019. "Rebel rule: A governmentality perspective." *African Affairs* 118(471):352–374.
- Hoffmann, Kasper, Koen Vlassenroot and Emery Mudinga. 2020. "Courses au pouvoir: the struggle over customary capital in the eastern Democratic Republic of Congo." *Journal of Eastern African Studies* 14(1):125–144.
- Hoffmann, Kasper, Koen Vlassenroot and Gauthier Marchais. 2016. "Taxation, Stateness and Armed Groups: Public Authority and Resource Extraction in Eastern Congo." *Development and Change* 47(6):1434–1456.
- Kohli, Atul. 2004. *State-directed development: political power and industrialization in the global periphery*. Cambridge: Cambridge University Press.
- Logan, Carolyn. 2009. "Selected Chiefs, Elected Councillors and Hybrid Democrats: Popular Perspectives on the Co-Existence of Democracy and Traditional Authority." *Journal of Modern African Studies* 47(1):101–128.
- Lowe, Sara and Eduardo Montero. 2021. "Concessions, Violence, and Indirect Rule: Evidence from the Congo Free State." *The Quarterly Journal of Economics* 136(4):2047–2091.
- Lowe, Sara, Eduardo Montero, Nathan Nunn and James A. Robinson. 2023. "Bokoko: Supernatural Power and Political Authority in the DRC." Working Paper.
- Machiavelli, Niccolò. 1981. *The Prince*. New York, N.Y.: Harmondsworth, Penguin Books.

- Mamdani, Mahmood. 1996. *Citizen and Subject: Contemporary Africa and the Legacy of Late Colonialism*. Princeton, N.J.: Princeton University Press.
- Marchais, G. 2016. “He Who Takes the Weapon Becomes Other: A Study of Participation in Armed Groups in South Kivu, Democratic Republic of the Congo.” *Unpublished PhD thesis, London School of Economics and Political Science* .
- Marchais, Gauthier, Paulin Bazuzi and Aimable Amani Lameke. 2020. “‘The data is gold, and we are the gold-diggers’: whiteness, race and contemporary academic research in eastern DRC.” *Critical African Studies* 12(3):372–394.
- Morvan, Helene. 2005. Réinventer le quotidien: la cohabitation des populations civiles et des combattants maï-maï au Kivu. Technical report Uppsala Life and Peace Institute.
- Muchukiwa, Bosco. 2006. *Territoires ethniques et territoires étatiques: pouvoirs locaux et conflits interethniques au Sud-Kivu (RD Congo)*. Anvers: Editions L’Harmattan.
- Müller-Crepon, Carl. 2020. “Continuity or change?(In) direct rule in British and French colonial Africa.” *International Organization* 74(4):707–741.
- Myerson, Roger B. 2015. “Moral Hazard in High Office and the Dynamics of Aristocracy.” *Econometrica* 83:2083–2126.  
**URL:** <https://ideas.repec.org/a/wly/emetrp/v83y2015ip2083-2126.html>
- Newbury, Colin. 2000. “Patrons, Clients, and Empire: The Subordination of Indigenous Hierarchies in Asia and Africa.” *Journal of World History* 11(2):227–263.  
**URL:** <http://www.jstor.org/stable/20078850>

- Northrup, David. 1988. *Beyond the bend in the river: African labor in eastern Zaire, 1865–1940*.  
Vol. 52 Ohio University Center for International Studies.
- Popescu, Bogdan. 2021. “Cuius Regio, Eius Religio: Indirect Rule and Conversion to Islam in the Early Ottoman Empire.” *Working Paper* .
- Sánchez de la Sierra, Raúl. 2020. “On the origins of the state: Stationary bandits and taxation in eastern congo.” *Journal of Political Economy* 128(1):32–74.
- Schouten, Peer. 2022. *Roadblock Politics*. Cambridge: Cambridge University Press.
- Shesterinina, Anastasia. 2019. “Ethics, empathy, and fear in research on violent conflict.” *Journal of Peace Research* 56(2):190–202.
- Staniland, Paul. 2021. *Ordering violence: Explaining armed group-state relations from conflict to cooperation*. Ithaca, N.Y.: Cornell University Press.
- Stearns, Jason K. 2023. *The war that doesn't say its name: the unending conflict in the Congo*. Princeton University Press.
- Stearns, Jason and Raphaël Botiveau. 2013. “Repenser la crise au Kivu : mobilisation armée et logique du gouvernement de transition.” *Politique Africaine* 129(1):23–48.
- Stys, Patrycja, Judith Verweijen, Papy Muzuri, Samuel Muhindo, Christoph Vogel and Johan H Koskinen. 2020. “Brokering between (not so) overt and (not so) covert networks in conflict zones.” *Global Crime* 21(1):74–110.
- Tilly, Charles. 1985. War Making and State Making as Organized Crime. In *Bringing the State Back In*, ed. Peter B. Evans, Dietrich Rueschemeyer and Theda Skocpol. Cambridge: Cambridge University Press.

Tirole, Jean. 1986. “Hierarchies and Bureaucracies: On the Role of Collusion in Organizations.”  
*The Journal of Law, Economics, and Organization* 2(2):181–214.

**URL:** <https://doi.org/10.1093/oxfordjournals.jleo.a036907>

Tull, Denis M. 2003. “A reconfiguration of political order? The state of the state in North Kivu (DR Congo).” *African Affairs* 102(408):429–446.

Verweijen, Judith and Koen Vlassenroot. 2015. “Armed mobilisation and the nexus of territory, identity, and authority: the contested territorial aspirations of the Banyamulenge in eastern DR Congo.” *Journal of Contemporary African Studies* 33(2):191–212.

Verweijen, Judith and Vicky Van Bockhaven. 2020. “Revisiting colonial legacies in knowledge production on customary authority in Central and East Africa.” *Journal of Eastern African Studies* 14(1):1–23.

Vogel, Christoph, Giovanni Salvaggio, Pierre Boisselet and Jason K Stearns. 2021. The Landscape of Armed Groups in Eastern Congo: Missed Opportunities, Protracted Insecurity and Self-Fulfilling prophecies. Technical report Kivu Security Tracker—Congo Research Group—NYU Center on International Cooperation.

**URL:** [https://kivusecurity.nyc3.digitaloceanspaces.com/reports/39/2021\\_KST\\_report\\_EN.pdf](https://kivusecurity.nyc3.digitaloceanspaces.com/reports/39/2021_KST_report_EN.pdf)

Wood, Elisabeth Jean. 2006. “The ethical challenges of field research in conflict zones.” *Qualitative Sociology* 29:373–386.

# Part

# Appendix

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## A Background: History of Indirect Rule in the Eastern DRC

Up until the mid-19th century, Eastern Congo’s political topography was characterized by small kingdoms connected through trade networks, with limited political centralization as compared to the neighboring Kingdom of Rwanda (Chrétien, 2000, Newbury, 1992, 2009). Political authority was centered on the figure of the chief but was elaborately balanced between lineage groups, and political competition revolved around succession to the thrones (Newbury, 1992). From the mid-19th century, the belligerent expansionism of the Rwandan Kingdom forced several kingdoms in the region into vassalage. Concomitantly, the expansion of the East African Slave trade into the region increased violent modes of resource mobilization and labor conscription, as well as governance arrangements akin to indirect rule. Tippu Tip, representative of the Sultanate of Zanzibar, forged a regional empire in which local chiefs were enlisted as intermediaries and charged with mobilizing resources, in particular taxes and labor to serve as soldiers, porters and slaves.

The colonial conquest and colonial rule led to profound changes in the region. In the early days of the Congo Free State, Tippu Tip was appointed governor of the east, spearheading the sub-contracting of rule to powerful intermediaries which would become a hallmark of Belgian colonial rule, from local power brokers to large concessionary companies (Lowe and Montero, 2021). Colonial rule in eastern Congo was carried out through what Hoffmann has called *ethnogovern-mentality*, the organization of mediated state power through the constitution of ethno-territorial

entities (Hoffmann, 2021). The creation of the Native authorities, which included an administrative “gridding” of rural areas and the establishment of administrative chiefs and sub-chiefs, as well as mapping efforts and population censuses, served two main functions. On one hand, the native authorities ensured control over rural populations at a low cost. On the other, they served to mobilize taxes and labor destined to a range of activities, from public works for the colonial state—in particular portage—and the various industries, to the staffing of the *Forces Publiques*, the colonial army (Northrup, 1988, p.41). In 1891, a royal decree recognized the institution of the chieftdom, enshrining native chiefs into the colonial state’s administrative apparatus (Hoffmann, 2021, p.254). The land over which customary chiefs ruled was given a separate legal status as *Terres Indigenes* (Native Land), instituting a separate land tenure regime governed by customary law, which has continued to this day (Mpoyi, 2013). The creation of the native homelands and the imposition of indirect rule was a messy and violent process, which gave rise to several resistance movements which the colonial state violently repressed. Chiefs found themselves in a difficult position, as they often tried to protect their subjects from the demanding quotas of the state but nevertheless had to comply or face being deposed, imprisoned or even assassinated. As a result of their collusion with the state, their legitimacy and claims to spiritual power could erode, especially as religious and millenarist movements of spiritual resistance to colonial rule emerged and contested their spiritual power, such as the Kitawala movement (Eggers, 2020). From the 1920s, efforts were made to reduce the tax and conscription burden on the populations, but the system nevertheless remained extractive and coercive, leading to several instances of revolts.

After Independence, political turmoil quickly turned into violent conflict with the secession of the provinces of Katanga (1960–1963), Kasai (1960–1962), the rebellions of Kwilu (1964–1965) and rebellion of the eastern provinces (1964–1966) (Kisangani, 2022). Following a *coup d’état*, Mobutu was able to ‘restore order’ through the establishment of an authoritarian and coercive regime. Measures were taken to centralize and streamline the state apparatus in order to exert full control over Congolese society: The objective—clearly stated by Mobutu—was direct rule, supposedly to steer the country towards modernity and development. Customary authorities, whose power had in several areas been extended during colonial rule, represented a direct obstacle to Mobutu’s power and his project of creating a centralized administrative apparatus (Young and Turner, 1985). As a result, Mobutu sought to abolish customary authority through a series of decrees from the late 1960s and early 1970s, only to face widespread resistance which forced him to abandon these reforms. The Congolese state nevertheless maintained a ‘bifurcated’ system of political organization (Mamdani, 1997). Strategic and economically lucrative regions were brought under direct state administration, while in other regions devolved forms of governance, often involving customary chiefs, prevailed.

## B Research Ethics

Collecting data in contexts of violence raises important security and ethical questions (Wood, 2006). Beyond the provisions made as a result of the project’s ethics reviews (available upon request), the project set up an extensive set of logistical, material, and communication measures to reduce the security risks associated with navigating the volatile security context of North Kivu.

First, we ensured that the researchers bore all the necessary authorizations to carry out the study. Given the tense environment, researchers were at risk of being stopped, arrested and detained. In order to reduce this risk, the project was presented to the North Kivu provincial au-

thorities, in particular the *Ministere de l'Interieur de la province du Nord Kivu* (interior ministry of the province of North Kivu) and the *Agence Nationale pour le Renseignement* (the national intelligence services). Following the official authorization of the project by these authorities, all project members were given an *ordre de mission* (mission statement), which carried the official stamps and signatures of these authorities. This procedure was replicated in each of the administrative units of North Kivu where the study took place. Before arriving in a village, the researchers and project members presented their authorizations to the civilian and military authorities of both the territories and *groupements* in which the villages were situated, and obtained the official stamps authorizing the study by these authorities. This procedure was also replicated at the village level, as the researchers would start by presenting the project and survey in detail to the civilian and military authorities of the village, and obtain their formal authorization (signature and stamp). This considerably reduced the risk of researchers being suspected of being spies or informants, and being arrested or detained.

Second, a number of measures were taken to reduce the exposure of researchers to various forms of threat by criminal or military actors. A tracking, information, and monitoring system was set up to closely follow the movements of researchers. Before going to a study village, the researchers would start by gathering all available information on the security situation of the village. This included the weekly security briefings of the United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA Sud Kivu), as well as weekly calls to Congolese civilian and military authorities in Goma. The researchers and project supervisor would also systematically seek information from local military and civilian authorities at the *territoire* and *groupement*. An assessment was then made of the security level of the study villages. Villages that presented a significant security risk were temporarily or permanently dropped from the study.

The researchers also followed strict security protocols for their travel, communications, and accommodation. First, they spent the night in villages/towns that presented an acceptable level of security, and did not travel at night. This meant that, for villages presenting a higher level of risk, the researchers were required commute each day between those villages and a larger and safer center, usually the local town with a national army and/or MONUSCO outpost. Furthermore, a communication system ensured that, each morning and each evening, the research teams would send an SMS to the project supervisor indicating their location, as well as the time and destination of any travel planned in the following days. These SMS went through a Frontline SMS program, which allowed to visualize and track researcher movements in real time. The research supervisor (co-author of this paper) would call each team in the evening to evaluate the security of further displacements, and discuss any problem. All teams were equipped with a Thuraya satellite phone, to use in the case of an emergency or to report their position in areas that lacked phone coverage. Despite these measures, researchers found themselves in difficult situations several times, which were dealt with on a case to case basis, but no major security incidents occurred.

In areas controlled by non-state armed groups, security and access was significantly more complex. Indeed, the institutional safeguards—official authorizations—were no longer effective, and could attract suspicion of collaboration with government forces. As a result, particular efforts were made by the researchers to mitigate risks before entering such areas. Building on the knowledge that armed groups often have deep social and institutional bases, contact was made with the civilian authorities of these areas to first evaluate the level of risk of the zone, and explain that the project members worked neither for the government nor any party involved in the conflict. When these didn't present sufficient reassurance, the study villages were dropped from the study.

In addition to the safety of the project members and researchers, the safety of the participants

in the study was of central concern to the research team. The first measure taken for respondent security was the informed consent of the authorities of the villages in which the survey was carried out. The researchers gave a presentation of the objectives of the study and survey questionnaire and handed a paper copy of these to the civilian and military authorities. The authorities were also informed that the Household Surveys would be carried out in private, and that the answers given by individual households would not be accessible either by the respondents or any other person apart from the project researchers, and never at the implementation site. The survey protocols also stressed that the researchers explain to the authorities that, while sensitive issues were addressed in the survey, none of the armed actors would be named in person, and an anonymization process prevented anyone from tracing back answers to particular respondents.

Second, a range of measures were built into the survey protocols and the survey to both detect and avoid any situation that could lead to the respondent being exposed to risk as a result of her/his participation in the survey. First, the researchers carried out the interviews in private locations, where no-one else than the researcher could hear the answers of the respondents, and where the respondents felt safe. Second, the content of the survey—the different parts, and the different types of questions that would be asked—were presented in detail to the respondent before asking for the informed consent. Furthermore, before each ‘sensitive’ section of the survey (such as security related questions), the researchers repeated the informed consent respondent and reiterated that the respondent could terminate the survey at any moment, that they had the right to not answer certain questions and that they should report whether any element of the survey or the situation could put them or their relatives at risk. The respondent was also reminded several times during the survey that all the collected information would be anonymized, and that the information provided could not be traced back to them. In order to ensure that the survey answers could not be traced back to any individual person, the names of the respondents were never recorded. Also, the list of village residents that were drawn for the random selection of survey households were systematically destroyed immediately after selection of the respondents, and the list of selected households was destroyed immediately after identification of the selected households by the researchers.

Discussing past experiences of violence, particularly through recall methods, can trigger traumatic memories (Corbelli, 2023). While it is impossible to rule out such occurrences, the project sought to minimize exposure to trauma, first through the repeated rounds of informed consent explained above, and also by explaining to the respondents that the survey might elicit traumatic memories. The research team has considerable experience conducting research on violence in eastern DRC, and they ensured that the respondents felt safe and confident before proceeding, and offered follow up discussions.

Data security and storage was also crucial, as anonymity of the data sources is important to ensure that no-one can be identified by potentially nefarious actors. All data was collected on electronic Tablets (Samsung), and no paper-based surveys were used. Both the devices and the data collection software were password protected to prevent anyone not on the study team from accessing the collected data directly from the devices. The data security and storage chain was the following: Surveys were conducted on the tablet devices in the study villages. After a few villages, the researchers would transfer the data to the project’s servers via an internet connection in a larger town. The project computer in the study team’s headquarters in the provincial capital with access to the server was kept in a safe and guarded project office. Upon reception and verification of the data, the data was immediately deleted from the data collection devices. Through this system, it was impossible for any external actor to access the data in the zone of implementation or even in the

project office in Goma—barring advanced computer hacking techniques. While there were many instances of lost or faulty data due to collection device problems or computer synchronization problems, there have been no reported incidents where unauthorized project members, or any external actor or individual, accessed or attempted to access the survey data.

## C Strengths and Limitations of Recall Method

This study relies in large part on the use of recall data, which allows to reconstruct past events, based on the recollection and memory of respondents. In eastern DRC, where historical and administrative documents and records are scarce—due both to the scarcity of historical archiving, but also to the destruction wrought by the war—very little systematic written evidence exists of how the war has unfolded, how it has affected economic, social and political activity, and how it has been experienced and perceived by local populations. Recall data is one of the ways in which this gap in historical records and empirical data can be partially filled, yet with important limitations.

The prime resource of the recall data method used in this survey is the memory and recollection of the inhabitants of rural South Kivu. The method takes advantage of the fact that one of the central modes of transmission of knowledge in the region is oral history, and thus follows methods long used by historians, anthropologists and sociologists (Acemoglu, Reed and Robinson, 2014, Newbury, 1992, Scott, 2009, Vansina, 1978, 2004). The project has sought to deploy a range of safeguards to address and reduce measurement error due to recall data.

The literature on the use of recall data shows us that measurement error associated with recall data varies with the recall period as well as the nature of the recalled events. The cognitive sciences teach us that, the shorter the recall period, the more self-reported answers converge towards the mean of the real distribution (Clarke, Fiebig and Gerdtham, 2008, Kjellsson, Clarke and Gerdtham, 2014, Tourangeau, 2000). Thus, the more a recollected event dates back in time, the more the magnitude of the measurement error increases. This constitutes the first significant challenge to the quality of recall data. Second, armed conflict usually constitutes a period of significant crisis for individuals, which is likely to affect their recollection of the period. While the literature points to the fact that recalling levels is easier than recalling events (Kjellsson, Clarke and Gerdtham, 2014), crisis events are significantly different than other events, and are likely to have particular effects. The literature points to two possible effects of crisis periods on the recollection of events. On one hand, crisis and the traumatic effects they can produce can distort the recollection of events and produce measurement errors (de Nicola and Giné, 2014, Tourangeau, 2000). On the other hand, the intensity of the events unfolding during violent conflict may also trigger a more vivid recollection of such events, and thus work against measurement error due to the length of the recall period (Brück et al., 2016, p.46, Wood, 2003). Furthermore, in recollecting periods of intense crisis, individuals are more likely to recall events with a better accuracy than attitudes, which are more likely to be affected by the distortive effects of trauma (Schacter, Verfaellie and Pradere, 1996, Viterna, 2006, p.14). While the data is inevitably affected by measurement error due to the recall period and distortion of the recollection of traumatic events, the literature points to several ways to reduce it, which have been implemented in this study.

## C.1 Situating Events in Time: Event Timelines

One of the methods used in this study to reduce measurement error in recall data, and in particular the measurement due to inaccurate recollection of time periods and years, are time cues and event timelines. Time cues are events of common knowledge that are invoked by the researchers to allow the respondent and researcher to situate the precise period at which a specific event has occurred. The literature in psychology and economics suggests that the use of time cues can substantially reduce measurement error about the timing of events (Brown, Shevell and Rips, 1986, Brück et al., 2016, Conway and Bekerian, 1987, de Nicola and Giné, 2014, Deaton, 2001, Dex, 1995). However, Brück et al. (2016, p.46) note that, while the use of event timelines does increase the accuracy of measurement, the quality of the events timeline is of particular importance, as inaccurate timelines are likely to enhance measurement errors.

This study paid particular attention to developing accurate event timelines and time cues and training researchers to use them effectively. First, national and regional events timelines were prepared, and served as a baseline for the confection of local—territory and grouping level—timelines that were developed by the researchers in the areas of implementation. Before the start of the survey in each village, the researchers would consult village experts to develop these timelines, which were then used as temporal references to situate the events recorded in the household survey. These local events timelines would typically include exceptional events in the village history of which residents were likely to have a vivid recollection, such as attacks on the village by armed group, natural disasters such as floods, the discovery of particular minerals (or the coltan boom), or the opening of a school, hospital, market or telephone line. Pilot studies carried out in the first months of the study showed that using these local events timelines significantly enhanced the accuracy of the recollection of dates and periods of events by respondents.

## C.2 Cross Checking Event Recollections: Triangulation

The second method used to address the risk of measurement error due to recall is triangulation. Triangulation allows to partially address measurement error due to faulty memory of the timing of events (Rothbauer, 2008). It also allows to reduce measurement error resulting from the positionality of respondents.

The survey protocol was designed to safeguard against such biases, by multiplying data points and extending the period of data collection and verification as much as possible within the logistical and budgetary constraints. The expert survey was carried out over a period of 7 days in each village, and involved the consultation of between 5 and 10 ‘village experts’, in addition to the village chief. These experts were selected on the basis of their knowledge of the village history, but also the main themes of the survey, in particular security and the economy of the village. In each village, the researchers would start by presenting the survey questions and the data to be collected by the village experts, and then supervise the gathering of information by these village experts during an entire week. On the final day, a day-long meeting with all village experts would allow to verify the collected information and cross-check different sources, before recording the data. This process allowed to eliminate a large part of the false or dubious information before it was recorded.

Furthermore, in order to reduce the risk that the data collected in the village survey could be biased by the positionality of the village experts, all village survey measures were systematically replicated in the household survey, which was carried out with 6 randomly selected village residents,

in complete anonymity. Thus, for all the key variables of the study, there were 7 data points, which were then compiled and compared, allowing to significantly reduce measurement error by triangulation. The qualitative reports, which were compiled during the 7 days of presence of the researchers in each village, also served as an additional source of triangulation. For key variables of the analysis, the data points observed in the datasets were systematically compared to the information contained in the qualitative report. The data was then benchmarked to data collected from other surveys, as a test of the accuracy of dates. The data closely matched both the well known and well documented historical events in the region—the start of the war, the coltan boom, the elections etc.—but also ACLED violent event datasets.

### **C.3 Measuring Changes Rather than Levels**

With regards to those variables that are collected in the Household Survey, measurement error can be particularly acute for variables that bear a certain level of complexity, as well as those that are measured on a yearly basis, as it is particularly difficult to recall levels. However, as de Nicola and Giné (2014) show, recalling changes on complex variables is easier than recalling levels. A similar fact is documented for recalling events vs. levels (Kjellsson, Clarke and Gerdtham, 2014). As a result, the survey was designed to measure events and changes rather than levels, when possible. For example, rather than being asked to report their level of wealth on a yearly basis, the researchers recorded the history of the respondent’s purchase and sale of key assets—cows, pigs, land, bikes. During pilots and then during the study, it became visible that respondents were much more likely to accurately recall the sale, loss or purchase of particular assets—such as a cows—than remembering their stock of cows for each year.

For those variables where levels were measured, the survey and protocols were designed to limit measurement error due to recall. de Nicola and Giné (2014) show that one of the reasons why measurement error in recall data increases with the length of the recall period is that, for longer recall periods, respondents will use inference instead of memory to estimate levels. However, using the example of fisherman’s recollection of their income level, they show that measurement error mostly affects recollection of variations in their income, but not the recollection of their mean income. This is because respondents ‘revert to the mean’ as the length of the recall period extends, and thus recall the mean with much more accuracy than the variations de Nicola and Giné (2014, p.58).

For those variables where levels are measured instead of changes, the questions focus on getting an accurate measure of the mean, rather than seeking to estimate the variations around the mean. Additionally, the protocols and questions were formulated so as to elicit the most accurate response possible for the estimation of the means. For example, for taxation levels by armed actors during a given year, the respondents were first asked to recall the maximum that a specific armed group levied in taxes during a given period, and then the minimum during that same period. This usually prompted a discussion between the researcher and the respondent that allowed to refresh the memory of the respondent. On that basis, the respondent was then asked to estimate the mean level of taxation by the armed group. The comparison of the 6 data points of the Household Survey with the Village Survey showed that these means were estimated with high levels of accuracy.

## D Individual Beliefs and Supernatural Beliefs

In order to address some of the stereotypes around the alleged negative relationship between so-called ‘rational intelligence’ and beliefs in spiritual and supernatural forces, which date back to colonial representations of Congolese society, we administered a Raven’s Progressive Matrices test. Raven’s tests are meant to measure ‘rational intelligence’ and ‘abstract thinking’, notions that should be taken with ample critical distance (along with the test itself). In Figure F.3, we can see that respondents who scored higher on a Raven’s test also gave their chiefs higher scores on supernatural power (Panel E), and that respondents scoring higher on a rational-experiential inventory gave lower scores on supernatural power to their chiefs (Panel F). Although we cannot draw conclusions about a question that was not part of our research objectives, and need to remain very cautious with regards to these tests, these results show that the alleged binary opposition between rational intelligence and beliefs in the supernatural is not supported by our data. Additionally, we explored some of the political and social orientations of respondents and their association with respondent’s perception of chiefs’ supernatural powers. Respondents scoring higher on the right-wing authoritarianism scale gave lower supernatural power scores to their chiefs (Panel G). In contrast, respondents scoring higher on social dominance scale give higher supernatural power scores to their chiefs (Panel H).

## E Constructing Indices of Direct and Indirect Rule

Measuring direct and indirect rule is challenging because there is no natural dichotomy in the governance arrangements established by armed groups in the areas they control. We take a systematic approach, that constructs vectors on 7 dimensions of governance: (1) extraction of resources (taxation and tribute), (2) mobilization of labor, (3) legitimization/*sensibilisation*<sup>13</sup>, (4) administration of the village/entity, (5) allocation of political power, (6) provision of public services, and (7) regulation of economic activity. We construct two indices, one for direct rule, and one for indirect rule, because direct and indirect rule are not mutually exclusive.

For the collection of taxes, we observe whether the group receives a head tax, and whether the head tax is collected by the group directly. We also observe whether the group raises a toll tax, a mill tax, a market tax, and whether the group creates forced debt. The collection of all or parts of these taxes can be delegated to intermediaries, which is the variation that we exploit for our analysis. The head tax, which is collected at the level of households, is often delegated to chiefs, as it can generate resentment among the population and requires legitimacy. More than 70% of groups raise a head tax, and about half of them collect the head tax directly. Groups organize toll taxes, mill taxes, market taxes, and forced debt between 10% and 60% of cases, and the toll tax and market tax are raised in more than 50% of cases. The chief is involved in the collection of the poll tax in 65% of the village×year observations.

For the mobilization of labor services, we observe the recruitment of combatants or support staff (such as porters) for the group. We also record who carried out the recruitments, and whether chiefs directly encouraged the recruitments. The chief is involved in recruitment in approximately 20% of cases, but the group carry out recruitment directly in 55% of village×year observations of episodes of armed group rule. For legitimization/*sensibilisation*, we look at whether the group it-

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<sup>13</sup>In the case of armed groups, *sensibilisation* usually means in the DRC the public meetings carried out to convince populations of the objectives, ideologies, and legitimacy of armed groups.

self, or the chief, carried out awareness raising activities and legitimization campaigns to justify the group’s ideology and military control over a given entity. We can see that, in 40% of village×years, the group organized the campaigns themselves, and that in about 20% of village×years the village chief organized campaigns in support of the group. Armed groups also chase away local witchdoctors and witches to replace them with their own witch doctors, in 17% of village×year observations, showing that control over the realm of the supernatural is also an important part of the ruling over an entity.

With regards to armed groups’ administration, we first observe whether an armed group administers the village, and whether there are signs of an institutionalization and formalization of this administration in the form of written documents, a written code of conduct or a rudimentary ‘constitution’, whether or not the group provides written contracts as well as written official communications, and whether or not the group has its own seal for official documents. In a majority of cases, armed groups have written official documents as well as an official seal, indicating a level of institutionalization of their administration. We also observe whether the group administers justice. In 75% of cases, the group administers the village directly and provides justice in the village. Chiefs, in contrast, administer the village and provide justice in 20–25% of cases. We also look at military presence and capacity in the entity, and find that the military presence of the group equals approximately 10 armed men on average per village×year of armed group rule.

Regarding the allocation of political power, we ask respondents who they perceived to hold political power in a village or entity: in 55% of the cases, political power is perceived to be in the hands of the group, while it is either shared with the chief or entirely delegated to the chief in approximately 42% of cases. Of these, the chief has all the political power in 20% of cases, and shares the power with the group in another 22% of cases.

Regarding the provision of public services, armed groups provide security in approximately 50% of the village×year observations, but rarely provide health, education, roads, or other public or private services (approximately 5% of the cases).

Finally, regarding economic regulation, armed groups set up roadblocks to tax trade and population movement in 50% of the village×year observations, create a local market only 8 times in the sample, regulate private firms 7% of the time, and are directly engaged in trade in 10% of cases.

We operationalize this categorization by first projecting all activities onto their respective dimension. We do so by using a principal component analysis. Equipped with one variable for each dimension of direct and indirect rule, we then construct a z-score index for indirect rule, and a second for direct rule.<sup>14</sup> We can thus interpret regression results as increases in one standard deviation of the normalized score. We present the results on each of the indirect rule, and direct rule, dimensions, in addition to the standardized scores.

## F Appendix Tables and Figures

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<sup>14</sup>We end up with one normalized variable for indirect rule, and another for direct rule, whose interpretation in a regression is straightforward, since it has mean zero and standard deviation of one.

Table F.1: Summary of Armed Group Episodes

**Panel A: Indirect Rule Indices**

Armed Group	Indirect Rule	Indirect Rule, by Domain					
		Tax	Justice	Legit.	Admin.	Recruit	Political
RCD-Goma	0.10	0.66	-0.32	0.24	-0.53	0.56	-0.40
Congolese Army	0.74	-0.69	1.02	0.15	0.81	-0.50	0.84
CNDP	0.06	0.56	-0.48	0.43	-0.50	0.69	-0.55
Mayi-Mayi	-0.01	0.62	0.29	-0.37	-0.03	-0.47	-0.04
Congolese Security Agencies	0.14	-1.14	-0.50	-0.17	1.31	-0.63	1.49
Mayi-Mayi Mudohu	-0.55	0.47	-0.05	-0.27	-0.59	-0.63	-0.34
FDLR	-0.38	0.60	-0.31	0.14	-0.47	-0.29	-0.55
Rwandan Group	-0.27	0.21	-0.08	-0.27	-0.29	-0.23	0.04
Nyatura	-0.15	0.64	-0.46	0.19	-0.68	0.50	-0.55
Mayi-Mayi Lulwako	-0.66	-0.18	-0.06	0.11	-0.55	-0.34	-0.55
AFDL	1.15	-0.55	0.89	0.14	-0.25	0.40	0.63
M23	0.18	0.45	-0.54	0.85	-0.68	0.94	-0.55
PARECO	-0.08	0.76	-0.54	-0.09	-0.68	0.46	-0.08
ADF	0.30	-0.97	1.84	0.03	0.93	-0.63	-0.55
Mongore	-0.54	0.17	0.25	-0.56	0.03	-0.63	-0.55
Mayi-Mayi Kifuafua	-0.63	0.52	-0.54	-0.30	-0.68	0.05	-0.55
Raia Mutomboki Eyadema	-0.09	0.52	-0.15	-0.56	0.39	-0.63	0.23
RCD-Kisangani	1.51	-0.19	0.65	1.79	0.39	0.40	0.63
RCD-Mongore	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Mayi-Mayi Kaganga	-0.38	-0.19	0.65	-0.56	0.39	-0.63	-0.55
Mayi-Mayi Kasingie	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Mayi-Mayi Samy-Mze wa meno	-1.21	0.08	-0.54	-0.56	-0.68	-0.63	-0.55
Mayi-Mayi Simba	0.32	0.87	0.65	-0.56	-0.68	-0.12	0.63
Mayi-Mayi Simba-Samy	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Janvier	-1.10	0.34	-0.54	-0.56	-0.68	-0.63	-0.55
Banyamulenge	.	-1.24	1.84	-0.56	0.39	-0.63	.
Mayi-Mayi Kabuchibuchi	0.10	0.87	-0.54	-0.56	-0.68	-0.63	1.80
Mayi-Mayi La Fontaine	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Mayi-Mayi Werrason Mbusa	0.01	0.87	-0.54	-0.56	1.46	-0.63	-0.55
Mayi-Mayi Kifuafua-Padiri	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Mayi-Mayi Surambaya	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Mayi-Mayi Samy-Kabuchibuchi	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Mayi-Mayi Padiri Karendo	1.08	0.87	1.84	1.79	-0.68	-0.63	-0.55
Raia Mutomboki	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Deserters	-0.76	-1.24	1.84	-0.56	-0.68	-0.63	-0.55
Foreigners	-1.32	-1.24	-0.54	-0.56	-0.68	0.40	-0.55
Kasidiens	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Mbairwe	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
Batiri	-0.88	0.87	-0.54	-0.56	-0.68	-0.63	-0.55
RCD-KML	0.84	0.17	-0.15	0.61	0.03	1.93	-0.55
Hutu Group	0.95	0.87	-0.54	1.79	-0.68	1.43	-0.55

*Notes:* This table presents the indirect rule indices of armed group episodes by all armed groups in our data. Continued ...

**Panel B: Episode Timing and Duration**

Armed Group	# Episodes	Average Length	Shortest Control	Longest Control	Earliest Control	Latest Control
RCD-Goma	49	5.51	1	9	1998	2013
Congolese Army	32	6.69	1	26	1990	2016
CNDP	25	4.08	2	9	1998	2011
Mayi-Mayi	23	2.26	1	6	1994	2015
Congolese Security Agencies	15	7.60	1	12	1990	2016
Mayi-Mayi Mudohu	12	2.58	1	5	2000	2005
FDLR	9	4.00	2	8	1993	2015
Rwandan Group	8	4.25	1	11	2000	2015
Nyatura	7	2.29	1	4	2010	2015
Mayi-Mayi Lulwako	7	5.00	1	26	1990	2016
AFDL	5	2.40	2	4	1996	2000
M23	5	2.80	2	3	2008	2014
PARECO	5	3.00	2	4	2003	2010
ADF	4	1.75	1	4	1997	1999
Mongore	3	1.00	1	1	2003	2005
Mayi-Mayi Kifuafua	3	2.67	1	4	1994	1997
Raia Mutomboki Eyadema	3	2.00	1	4	2001	2013
RCD-Kisangani	2	2.00	1	3	1999	2002
RCD-Mongore	2	4.50	4	5	2001	2005
Mayi-Mayi Kaganga	2	1.50	1	2	1996	1997
Mayi-Mayi Kasingie	2	4.00	2	6	1992	1997
Mayi-Mayi Samy-Mze wa meno	2	2.00	2	2	2004	2006
Mayi-Mayi Simba	2	1.50	1	2	1999	2000
Mayi-Mayi Simba-Samy	2	3.50	3	4	1999	2007
Janvier	2	3.50	3	4	2008	2011
Banyamulenge	2	1.00	1	1	1997	1997
Mayi-Mayi Kabuchibuchi	1	1.00	1	1	2002	2002
Mayi-Mayi La Fontaine	1	1.00	1	1	2011	2011
Mayi-Mayi Werrason Mbusa	1	1.00	1	1	2007	2007
Mayi-Mayi Kifuafua-Padiri	1	2.00	2	2	2001	2002
Mayi-Mayi Surambaya	1	1.00	1	1	2002	2002
Mayi-Mayi Samy-Kabuchibuchi	1	2.00	2	2	2006	2007
Mayi-Mayi Padiri Karendo	1	3.00	3	3	1997	1999
Raia Mutomboki	1	1.00	1	1	2012	2012
Deserters	1	1.00	1	1	1998	1998
Foreigners	1	3.00	3	3	2012	2014
Kasidiens	1	3.00	3	3	1998	2000
Mbairwe	1	4.00	4	4	1993	1996
Batiri	1	5.00	5	5	1993	1997
RCD-KML	1	6.00	6	6	1997	2002
Hutu Group	1	5.00	5	5	1993	1997
	249	4.25	1	26	1990	2016

*Notes:* This table shows summary statistics of armed group episodes by all armed groups in our data.

Table F.2: Chiefs' Power is Multi-Faceted, Hinges on Supernatural (Fact 1)—Factor Analysis

	Factor	Uniqueness
Customary authority	0.758	0.425
From the ruling family	0.758	0.425
Enthronement ceremony	0.698	0.513
Confirmed by spirits	0.743	0.448
Was the population consulted	0.649	0.579
Mobilizing ability	0.828	0.314
Sensibilizing ability	0.835	0.303
Supernatural power	0.651	0.577
Management skills	0.700	0.509
Threat of force	0.771	0.406
Charisma	0.789	0.378
Liked at start of reign	0.559	0.687
Requests per month at start of reign	-0.195	0.962
Private conversations per month	0.026	0.999

*Notes:* This table creates a factor variable of chief power (Panel A) and predicts the factor variable using chief characteristics (Panel B).

Table F.3: Predictors of Chief Power Factor

	(1) Chief Power Factor
Start of reign	-0.00957*** (0.00325)
Length of reign	-0.000906 (0.00398)
Birth Year (Mean)	-0.00754** (0.00287)
Related to previous chief (Mode)	0.502*** (0.178)
Related to mwami (Mode)	-0.610** (0.258)
Traditional owner of land? (Mode)	1.143*** (0.184)
How many witches (Mean)	-0.000144 (0.00649)
Observations	262
$R^2$	0.559
Fixed Effects	No
Cluster	Village

*Notes:* This table predicts the factor variable of Panel B in Table 2 using chief hard characteristics. \*, \*\*, \*\*\* indicate that the corresponding coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

Table F.4: Institutional Choice by Different Chief Characteristics

	Indirect Gradient (Indirect – Direct Rule)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Start of reign	-0.0125 (0.0111)						
Length of reign		0.00857 (0.0160)					
Birth Year (Mean)			-0.00679 (0.0175)				
Related to previous chief (Mode)				1.250*** (0.418)			
Related to mwami (Mode)					-0.0943 (0.710)		
Traditional owner of land? (Mode)						1.387** (0.622)	
How many witches (Mean)							-0.0128 (0.0294)
Observations	128	108	105	108	108	105	108
$R^2$	0.333	0.358	0.373	0.438	0.356	0.417	0.356
Year FE	✓	✓	✓	✓	✓	✓	✓
AG FE	✓	✓	✓	✓	✓	✓	✓

Standard errors in parentheses \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table F.5: Armed Group Control by Chief Power

	Village Controlled by Armed Group	
	Any (1)	excluding Army (2)
Predicted Chief Power	-0.0390 (0.0552)	-0.0491 (0.0407)
Observations	2064	2064
$R^2$	0.153	0.296
Year FE	✓	✓
District FE	✓	✓

*Notes:* This presents estimates of Equation 1 using as dependent variable an indicator for whether an village is occupied by an armed group. The analysis is at the village-year level. Standard errors, clustered at the village level, are shown in parentheses. \*, \*\*, \*\*\* indicate that the corresponding coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

Table F.6: Greater Power of Chiefs Results in More Indirect Rule (Fact 2) Including State Forces

<b>Panel A: Chief Power</b>				<i>Dependent Variables:</i>						<b>Intensity Rule</b>
<b>Indirect Rule</b>	<b>Direct Rule</b>	<b>Indirect Gradient</b>	Indirect Rule Gradient (Indirect – Direct), by Domain							
(1)	(2)	(3)	Taxation <sup>‡</sup>	Justice <sup>‡</sup>	Legit. <sup>‡</sup>	Admin	Recruit.	Political	(10)	
Chief Power	0.130 (0.127)	-0.119 (0.0902)	0.250 (0.194)	-0.0550 (0.0790)	0.554** (0.245)	0.141 (0.131)	0.362** (0.139)	0.0701 (0.129)	0.107 (0.187)	0.0112 (0.105)
Observations	143	143	143	151	151	151	151	151	143	143
$R^2$	0.473	0.602	0.560	0.432	0.521	0.622	0.596	0.390	0.584	0.415

<b>Panel B: Predicted Chief Power</b>				<i>Dependent Variables:</i>						<b>Intensity Rule</b>
<b>Indirect Rule</b>	<b>Direct Rule</b>	<b>Indirect Gradient</b>	Indirect Rule Gradient (Indirect – Direct), by Domain							
(1)	(2)	(3)	Taxation <sup>‡</sup>	Justice <sup>‡</sup>	Legit. <sup>‡</sup>	Admin	Recruit.	Political	(10)	
Predicted Chief Power	0.385* (0.203)	-0.428*** (0.131)	0.814*** (0.290)	0.0375 (0.165)	1.214*** (0.390)	0.268 (0.232)	0.589** (0.272)	0.0488 (0.241)	0.561* (0.296)	-0.0431 (0.181)
Observations	136	136	136	141	141	141	141	141	136	136
$R^2$	0.505	0.623	0.593	0.427	0.517	0.635	0.581	0.429	0.612	0.404

<b>Panel C: Coethnicity</b>				<i>Dependent Variables:</i>						<b>Intensity Rule</b>
<b>Indirect Rule</b>	<b>Direct Rule</b>	<b>Indirect Gradient</b>	Indirect Rule Gradient (Indirect – Direct), by Domain							
(1)	(2)	(3)	Taxation <sup>‡</sup>	Justice <sup>‡</sup>	Legit. <sup>‡</sup>	Admin	Recruit.	Political	(10)	
Coethnic Village-Chief	0.341 (0.286)	-0.457*** (0.155)	0.799** (0.361)	0.259 (0.204)	0.954** (0.362)	-0.116 (0.320)	0.620** (0.281)	-0.0938 (0.345)	0.570** (0.284)	-0.116 (0.285)
Coethnic Group-Chief	-0.235 (0.208)	0.248* (0.142)	-0.483 (0.301)	-0.361** (0.154)	-0.729** (0.332)	-0.141 (0.298)	-0.112 (0.211)	0.160 (0.257)	-0.318 (0.265)	0.0126 (0.192)
Observations	163	163	163	171	171	171	171	171	163	163
$R^2$	0.385	0.623	0.556	0.448	0.473	0.614	0.650	0.325	0.579	0.314

*Notes:* This table replicates Table 1 while also including the state forces among the armed groups in the analysis. All specifications include armed group and year fixed effects. Standard errors, clustered at the village level, are shown in parentheses. \*, \*\*, \*\*\* indicate that the corresponding coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

Table F.7: Ultimately, Armed Group Institutions Converge to Direct Rule (Fact 3)

<b>Panel A: Main Sample</b>	<i>Dependent Variables:</i>			
	<b>Indirect Rule</b>	<b>Direct Rule</b>	<b>Indirect Gradient</b>	<b>Intensity Rule</b>
	(1)	(2)	(3)	(4)
Group's tenure (years)	-0.149** (0.0631)	0.155** (0.0654)	-0.304*** (0.112)	0.00539 (0.0623)
Observations	657	657	657	657
$R^2$	0.891	0.863	0.882	0.876

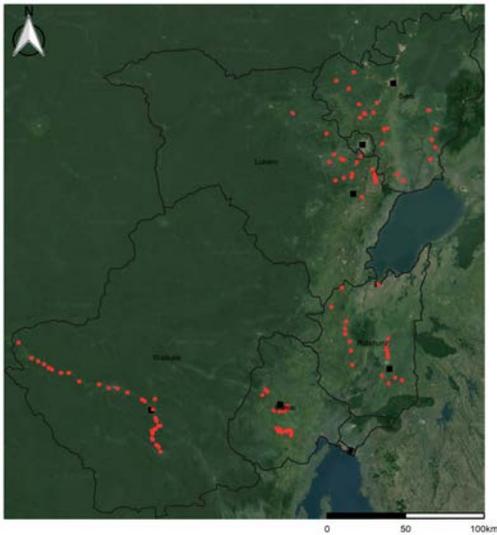
  

<b>Panel B: Including State</b>	<i>Dependent Variables:</i>			
	<b>Indirect Rule</b>	<b>Direct Rule</b>	<b>Indirect Gradient</b>	<b>Intensity Rule</b>
	(1)	(2)	(3)	(4)
Group's tenure (years)	-0.174*** (0.0580)	0.148** (0.0588)	-0.323*** (0.104)	-0.0261 (0.0524)
Observations	926	926	926	926
$R^2$	0.902	0.931	0.923	0.902

*Notes:* This presents the estimates of Equation 2 in which the yearly indicators as explanatory variables are replaced with a linear count of the number of years a group has had tenure in a village. The analysis is at the village-year level and all years when a village is occupied by an armed group are included. The Indirect Rule (Column 1) and Direct Rule (Column 2) indicators, as well as their difference (Column 3), and their sum (Column 4) are the outcome variables. All specifications include year and armed-group episode fixed effects. Standard errors, clustered at the village level, are shown in parentheses. \*, \*\*, \*\*\* indicate that the corresponding coefficient is statistically significant at the 10%, 5%, and 1% levels, respectively.

Figure F.1: Map of Sample and DRC

Panel A: Map of Sample Villages



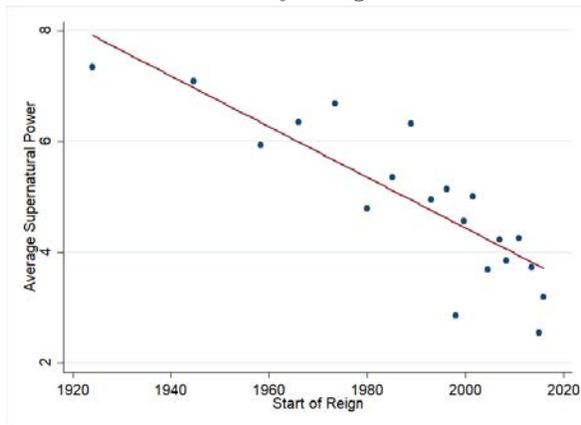
Panel B: Location of North Kivu



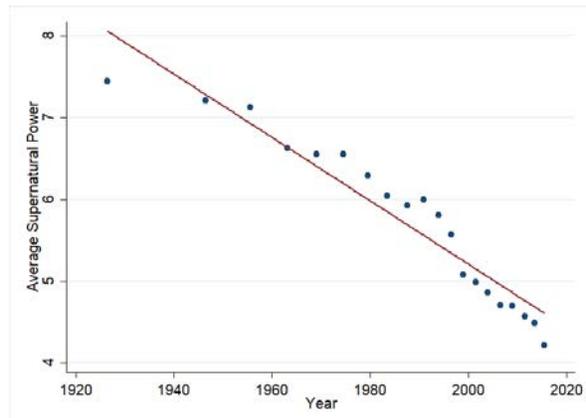
*Notes:* This figure shows our study locations. Panel A shows the coordinates of the villages in our data and Panel B shows the location of North Kivu, shaded red, in the Democratic Republic of the Congo. The diamond shape indicates the location of the capital Kinshasa.

Figure F.2: Correlates of Chiefs' Supernatural Power. Chief Characteristics

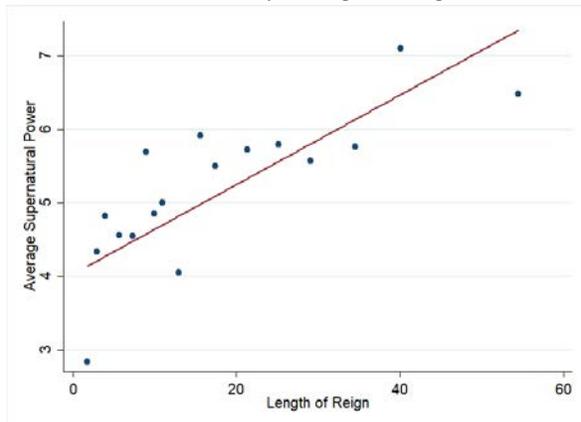
Panel A: By Reign Start



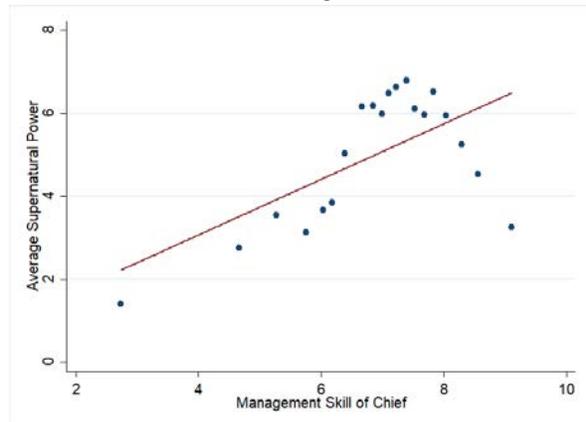
Panel B: Over Time



Panel C: By Reign Length

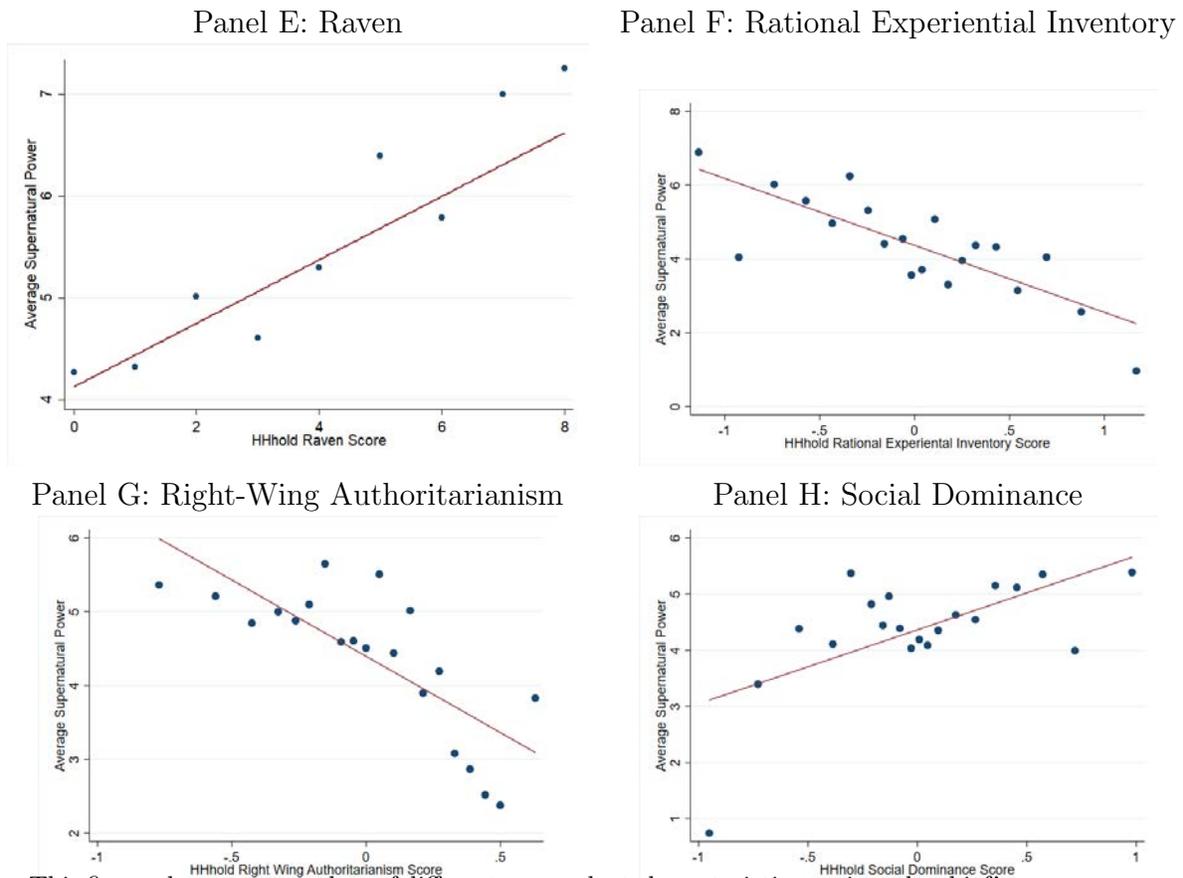


Panel D: Management Skill



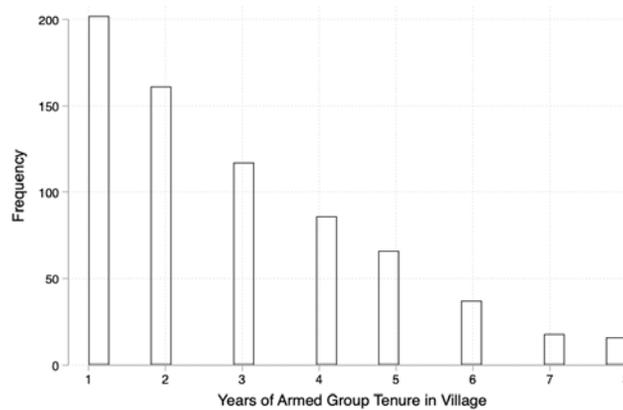
*Notes:* This figure shows scatter plots of different chief characteristics against the chief's average supernatural power according to villagers. The linear trend is added to the scatter plot.

Figure F.3: Correlates of Chiefs' Supernatural Power. Respondent Characteristics.



Notes: This figure shows scatter plots of different respondent characteristics against the chief's average supernatural power according to villagers. Panel A shows the respondents score on the Raven's test on the x-axis, Panel B the Rational Experiential Inventory score, Panel C the Right Wing Authoritarianism score, and Panel D the Social Dominance score. The linear trend is added to the scatter plot.

Figure F.4: Sample Size in Fact 3 Coefficient Estimation



Notes: This figure shows a histogram of the sample size used in each year of armed group in village.

## References

- Acemoglu, Daron, Tristan Reed and James A. Robinson. 2014. “Chiefs: Economic Development and Elite Control of Civil Society in Sierra Leone.” *Journal of Political Economy* 122(2):319–368.
- Brown, Norman R, Steven K Shevell and Lance J Rips. 1986. *Public Memories and Their Personal Context*. New York: Cambridge University Press.
- Brück, Tilman, Patricia Justino, Philip Verwimp, Alexandra Avdeenko and Andrew Tedesco. 2016. “Measuring violent conflict in micro-level surveys: Current practices and methodological challenges.” *The World Bank Research Observer* 31(1):29–58.
- Chrétien, Jean-Pierre. 2000. *L’Afrique des Grands Lacs: Deux Mille Ans d’histoire*. Paris: Aubier.
- Clarke, Philip M, Denzil G Fiebig and Ulf-G Gerdtham. 2008. “Optimal recall length in survey design.” *Journal of Health Economics* 27(5):1275–1284.
- Conway, M. A. and D. A. Bekerian. 1987. “Organization in Autobiographical Memory.” *Memory & Cognition* 15(2):119–132.
- Corbelli, Veronica. 2023. Ethical considerations on recall methods in violent conflict research. Technical report Institute of Development Studies.  
**URL:** <https://www.ids.ac.uk/opinions/ethical-considerations-on-recall-methods-in-violent-conflict-research/>
- de Nicola, Francesca and Xavier Giné. 2014. “How accurate are recall data? Evidence from coastal India.” *Journal of Development Economics* 106:52–65.
- Deaton, Angus. 2001. “Counting the world’s poor: problems and possible solutions.” *The World Bank Research Observer* 16(2):125–147.
- Dex, Shirely. 1995. “The reliability of recall data: A literature review.” *Bulletin of Sociological Methodology/Bulletin de Methodologie Sociologique* 49(1):58–89.
- Eggers, Nicole. 2020. “Authority that is customary: Kitawala, customary chiefs, and the plurality of power in Congolese history.” *Journal of Eastern African Studies* 14(1):24–42.
- Hoffmann, Kasper. 2021. “Ethnogovernmentality: The making of ethnic territories and subjects in Eastern DR Congo.” *Geoforum* 119:251–267.
- Kisangani, Emizet François. 2022. *Civil wars in the Democratic Republic of Congo, 1960–2010*. Boulder: Lynne Rienner Publishers.
- Kjellsson, Gustav, Philip Clarke and Ulf G. Gerdtham. 2014. “Forgetting to remember or remembering to forget: A study of the recall period length in health care survey questions.” *Journal of Health Economics* 35(1):34–46.
- Lowes, Sara and Eduardo Montero. 2021. “Concessions, Violence, and Indirect Rule: Evidence from the Congo Free State.” *The Quarterly Journal of Economics* 136(4):2047–2091.

- Mamdani, M. 1997. Understanding the Crisis in Kivu: Report of the CODESRIA Mission to the Democratic Republic of Congo September 1997. Technical report Council for the Development of Social Research in Africa (CODESRIA). Submitted to the General Assembly of the Council for the Development of Social Research in Africa (CODESRIA) in Dakar, Senegal, December 14-18, 1998.
- Mpoyi, Augustin M. 2013. “Amélioration de la gouvernance du secteur foncier en République Démocratique du Congo : La mise en oeuvre du cadre d'évaluation de la gouvernance foncière (CAGF).” World Bank Working Paper 119613.
- Newbury, David S. 1992. *Kings and Clans: Ijwi Island and the Lake Kivu Rift, 1780–1840*. Madison: University of Wisconsin Press.
- Newbury, David S. 2009. *The Land Beyond the Mists: Essays on Identity and Authority in Precolonial Congo and Rwanda*. Athens: Ohio University Press.
- Northrup, David. 1988. *Beyond the bend in the river: African labor in eastern Zaire, 1865–1940*. Vol. 52 Ohio University Center for International Studies.
- Rothbauer, Paulette M. 2008. Triangulation. In *The SAGE Encyclopedia of Qualitative Research Methods*, ed. Lisa M Given. London: Sage Publications.
- Schacter, Daniel L, Mieke Verfaellie and Dan Pradere. 1996. “The neuropsychology of memory illusions: False recall and recognition in amnesic patients.” *Journal of Memory and Language* 35(2):319–334.
- Scott, James C. 2009. *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia*. New Haven: Yale University Press.
- Tourangeau, Roger. 2000. Remembering What Happened: Memory Errors and Survey Reports. In *The Science of Self-report: Implications for Research and Practice*. Mahwah: Lawrence Erlbaum Associates Publishers.
- Vansina, Jan. 1978. *The Children of Woot: A History of the Kuba Peoples*. Madison: University of Wisconsin Press.
- Vansina, Jan. 2004. *Antecedents to Modern Rwanda: The Nyiginya Kingdom*. Madison: University of Wisconsin Press.
- Viterna, Jocelyn S. 2006. “Pulled, pushed, and persuaded: Explaining women’s mobilization into the Salvadoran guerrilla army.” *American Journal of Sociology* 112(1):1–45.
- Wood, Elisabeth J. 2003. *Insurgent collective action and civil war in El Salvador*. New York: Cambridge University Press.
- Wood, Elisabeth Jean. 2006. “The ethical challenges of field research in conflict zones.” *Qualitative Sociology* 29:373–386.
- Young, Crawford and Thomas Edwin Turner. 1985. *The rise and decline of the Zairian state*. Madison: University of Wisconsin Press.

