The Mechanisms of Direct and Indirect Rule: Colonialism and Economic Development in Africa

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ABSTRACT: A number of studies have found that British colonialism—specifically its policy of indirect rule—improved local economic development relative to the French policy of direct rule. There is less consensus, however, as to *why* indirect rule would produce better economic outcomes. This article proposes three mechanisms linking indirect rule to development: the devolution of power to local communities, the empowerment of traditional authorities, and the reification of ethnic identities. Using a geographic regression discontinuity research design on Cameroon's internal anglophone-francophone border, a legacy of the country's dual colonial heritage, the article finds the most evidence for the first mechanism, that citizens on the anglophone side of the border are more likely to act locally and, indeed, see their local institutions as more legitimate. In contrast, we find mixed evidence for the other two mechanisms regarding the power of chiefs and ethnic identities.

Over the past fifteen years, a significant body of research in both economics and political science has begun to take a long-term focus on the political economy of development. Of particular note is a debate over the impact of colonialism on contemporary economic disparities. In this article, we focus on one such recent claim: states that were ruled under British indirect rule have better levels of economic development today than areas administered under direct rule, associated most strongly with the French, especially at the local level.[1] This claim has been supported by both cross-national and subnational studies,[2] but the emerging literature has less to say about the mechanisms of the finding; *why* these two forms of colonialism would leave distinct economic legacies.[3]

Recent work linking *settler* colonialism to better economic outcomes has theorized mechanisms, arguing that institutional transfers, specifically property rights, generated greater economic gains, but this represents only a small minority of countries in sub-Saharan Africa.[4] However, we lack such precise mechanisms for why former non-settler British colonies would have higher rates of economic development relative to former French colonies.[5] In their widely-cited study of Cameroon, Lee and Schultz (2012) conclude: "Though our ability to identify causal mechanisms is limited, the evidence suggests that communities on the British side benefited from a policy of indirect rule and lack of forced labor, which produced more vigorous

[1] Lee and Schultz 2012; Iyer 2010; Bertocchi and Canova 2002.
[2] With some exceptions (see Lange 2004).
[3] Although this article discusses the *relative* advantage of British colonialism in relation to French colonialism in the context of sub-Saharan Africa, we would like to emphatically state that British *and* French colonial rule had undeniably negative economic, political, and social impacts across the continent. The intention of this article is not to imply that British colonialism was good for economic or political development on the continent.
[4] E.g. Acemoglu, Johnson, and Robinson 2001; Young 1994; Brown 2000. Further, it is questionable whether cases such as South Africa or Zimbabwe would even qualify as settler colonies in the context of institutional transfers, as population densities varied considerably from the textbook cases of the US, Canada, Australia and New Zealand.
[5] Though there are clearer mechanisms delineated to explain the relationship between indirect rule and democratization and other political factors (see: Lechler and McNamee 2018; McNamee 2019; Mamdani 1996)

local institutions" (2). However, the authors are quite silent on how and why indirect rule might produce more vigorous local institutions.

This article develops and tests three different mechanisms that may explain the relationship between indirect rule and better local level economic development. Holding national institutions constant in our research design, we identify local-level mechanisms that can explain micro-level variation in economic development. The first mechanism proposes that, relative to direct rule, indirect rule was more likely to devolve power to the local level, and thus citizens today should be more empowered to think and act locally, legitimizing local institutions capable of coordinating collective action in the process.[6] This mechanism proposes that indirect rule more fundamentally altered the capacity of village-level communities to organize locally to solve problems. Second, British indirect rule may have led to better local-level economic development because it was more likely to empower traditional leaders and customary institutions. Within the postcolonial state, groups with stronger customary authorities may be better positioned to overcome collective action problems and provide local public goods because traditional leaders facilitate group coordination.[7] Finally, British indirect rule may have created better local development because it created, emphasized and reified the importance of the *ethnic* community.[8] Existing scholarship tells us that strong group identities generate a sense of in-group solidarity and that where and when strong identities are more salient, communities are better positioned to coordinate in the face of social dilemmas.[9]

[6] MacLean 2010; Logan 2009; Williams 2010.
[7] Baldwin 2016.

[8] McNamee 2019.

[9] E.g. Singh 2011.

We arbitrate between these three mechanisms with a geographic regression discontinuity (RD) research design in Cameroon. Originally conquered by Germany, German *Kamerun* was split into French Cameroun and the British Cameroons after World War I, making Cameroon the only African country to be colonized by both France and Britain. At independence in 1961, the southern British Cameroons voted to reunify with French Cameroon, and today, the area that was administered by the British now forms two of Cameroon's ten regions: Northwest and Southwest regions. Taking the border between what is now anglophone and francophone Cameroon as exogenously created, we use it to arbitrate between the effects of direct and indirect rule, holding constant the postcolonial state. In this way, we build on Lee and Schultz's (2012) research design, who found that the anglophone regions of Cameroon - those colonized by the British - have higher levels of local economic development today. Similar findings have been documented in India and across sub-Saharan Africa more broadly.[10]

We advance on Lee and Schultz's (2012) study by explaining *why* different forms of colonial rule would affect development. Employing Afrobarometer data, we find the strongest evidence in support of the first hypothesis, that indirect rule was more likely to devolve decision-making authority, thus empowering local institutions as a locus of political action capable of resolving development problems. We find mixed support for the hypothesis that British indirect rule was more likely to empower traditional leaders and less evidence that indirect rule generated stronger ethnic identities that led to more robust ethnic political networks.[11] In the following section, we begin with a general discussion of the differences between British indirect rule and French direct rule in sub-Saharan Africa before delineating our hypotheses.

[10] Iyer 2010; Bertocchi and Canova 2002; Grier 1999.
[11] McNamee 2019; E.g. Singh 2011.

Direct and Indirect Rule in Sub-Saharan Africa

This article investigates the differential impact of the two classic modes of colonial administration – French direct and British indirect rule- introduced in Africa during the late 19th and early 20th centuries. Although the extant literature tends to define these two modes of rule as simply 'the extent to which local authorities were empowered to rule over their communities,' we take a considerably more holistic approach to understanding French direct rule and British indirect rule, which were built upon fundamentally distinct philosophies of empire. French direct rule was predicated on the philosophy of assimilationism: the idea that colonial subjects would become French citizens.[12] Because the French believed both that their cultural and political systems were universally superior *and* that they were applicable to all peoples, one of the goals of empire was to undermine local identities, indigenous institutions, and local power in order to transplant them with a French identity, French institutions, and centralized power. Thus, the French colonial state was highly centralized, with decisions descending downwards from Paris to its colonial outposts.[13] The French vested political authority in French colonial officers, viewing indigenous chiefs as subordinate state agents, tasked with following the directives of colonial officers.

In contrast, the British approach was more broadly preservationist.[14] The British colonial administration did not believe that Africans would become Europeanized, and thus were not ideologically committed to importing British culture or political systems into their non-settler

[12] Crowder 1964, 199–202.
[13] For example, Lapie writes in (1944), " Following the tradition of 1789 [the French Revolution], every Frenchman was disposed to share with all colonized peoples the institutions he enjoyed himself. He considered [this] his highest moral duty" (108).
[14] Lawrence 2017, 1.

colonies. Of course, as has been documented by Mamdani (1996), the British often manipulated tradition, but at base they sought to shore up local authority systems instead of replacing them with British institutions, especially at the local level. Associated most famously with Lord Lugard's policy of rule in Northern Nigeria, the core animating principle of indirect rule was the preservation of local tradition, notably the authority of traditional authorities and customary law, under the advisory consul of the British.[15] As a consequence, the British were fixated on identifying, cataloguing, and homogenizing indigenous ethnic communities in an effort to establish *who* had legitimate authority of *whom*.

Recent work by social scientists has focused in particular on the differential implications these forms of colonial administration hold for customary authorities. The French frequently handpicked indigenous leaders when preexisting authorities proved unwilling to cooperate and were more likely than the British to select Africans who had been educated in the European system.[16] This was because the French viewed indigenous structures and identity groups as things to be eliminated; eventually subjects would abandon ethnic or parochial identities in favor of French culture, rendering the identification of 'correct' ethnic groups or 'correct' leaders considerably less important. In contrast, British colonial agents put significant effort into locating 'legitimate' chiefs to serve as intermediaries and, in the process, many chiefs actually saw their authority *strengthened* during the colonial period.[17] Unlike in French colonies, where chiefs executed orders handed down from the metropole, most chiefs saw minimal British interference in local issues as long as they met British demands for taxation, labor and cash crop production.[18]

[15] Crowder 1964, 198.
[16] Gerring et al. 2011; Chiabi 1997, 27. Indeed, as Muller-Crepon (2018) has recently shown, French colonial regimes in sub-Saharan Africa dismantled seven out of ten precolonial polities, over double the British rate of three in ten.
[17] Mamdani 1996.
[18] Crowder 1968, 169. Of course, these demands were not negligible for local communities.

Of course, these are 'ideal types' of colonial administration. Historically, the differences between British indirect rule and French direct rule were much richer, and the theoretical project laid out in European capitals described above must be recognized as distinct from colonial administration in practice.[19] In most areas of Africa, the colonial state was thin on the ground, and, much like the British, in many regions the French administration relied heavily on indigenous intermediaries, such that while many attribute the primary difference between the two systems to the amount of power delineated to local chiefs, in reality the amount of power given to indigenous leaders and local authorities was arguably among the least uniform characteristics within or across the systems.[20]

Recognizing these differences, however, does not negate the core ideals that animated British and French colonial administration in sub-Saharan Africa, which proved remarkably consistent over time. In fact, the evolution of these policies highlights the continuity of the core philosophies. For example, the French turn away from 'assimilation' to 'association' was largely driven by the costs of the colonial project; as colonial governors struggled to raise sufficient revenues from the colonies, the appeal of indirect rule—which decreased the need for a large colonial administration—became increasingly attractive. Philosophically, however, the civilizing mission never fundamentally changed for France, and although they relied on traditional authorities more heavily for tax collection in the late colonial period, formal institutions of authority remained clearly modelled after the metropole, and chiefs were not given more policy autonomy. In contrast, as independence loomed, British thinking evolved towards a theory of local government: native authorities should move towards democratic practice. Traditional

[19] For example Lawrence (2016) argues that colonial policy was more directly shaped by politics within the colony than attributes of the colonized, echoing Gerring et al. 2011.
[20] Herbst 2000; Lange 2004; Iyer 2010; Lechler and McNamee 2018; Lawrence 2016.

authority was not to be dismantled as the colonies prepared for independence. Instead, the base unit of administration, the native authority, would adopt more robust and representative forms of local governance.[21] Indeed, most British Native Authorities adopted electoral practices in the 1950s, meaning that local representative institutions were grafted onto units originally developed around putatively indigenous traditional authorities. Thus, policy changes were distinctly based in different sets of standard operating procedures grounded in the broader philosophies of direct and indirect rule.

(In)Direct Rule and Economic (Under)Development: Three Mechanisms

Why did the legacy of indirect rule eventually produce better economic outcomes in the contemporary period? We develop three potential mechanisms linking mode of colonial rule to long-term patterns of local economic development: the devolution of decision-making authority to the local level, the empowerment of chiefs, and the orientation towards ethnic communities.

Mechanism 1: Empowerment of Local Communities

The first mechanism highlights the fact that British indirect rule focused political decision-making at the local level. The British tendency to delegate substantial administrative autonomy to the local community was strikingly different from the metropolitan inclination of French colonial politics.[22] This orients citizens to think of the locus of state power differently: citizens in former French territories should look to the central state for solutions to local problems, while citizens of former British territories should be more empowered to think and act

[21] Robinson 1950.
[22] Mazrui, 1983; Miles, 1994, p. 311.

locally. Specifically, citizens in former British colonies should imbue their local political arena with more legitimacy and see local institutions as capable of mediating disputes and resolving local collective action problems.

In contrast, colonial policies of direct rule left a legacy of nationhood in former French territories: as Mazrui (1983) argues, the French colonial state not only stressed *frenchness* as a unifying principle, it also discouraged local decision-making and capacity-building. This logically follows from the language of French citizenship that animated political and economic claim-making by African elites in the late colonial power. The French response involved, among other things, the early introduction of territorial elections, which generated political parties, patronage networks and other forms of mobilization that reoriented rural and urban Africans alike towards a national political territory.[23] In contrast, evidence from across the continent suggests that communities administered under indirect British colonial rule saw political power oriented closer to home. For example, the British administration in the Southern Cameroons actively sought to encourage a 'self-help' doctrine among colonial subjects; the goal was to encourage a 'desire for progress' firmly within the framework of 'African tradition' that the British sought to preserve at the local level.[24] Similarly, Renner (1985, 76) writes that while traditional authorities in the British Gambia were allowed and encouraged to formulate local policy initiatives for their communities, their co-ethnic counterparts in French Senegal were mere "salaried officials" carrying out French directives.

In the present, scholars like Maclean (2010, p. 10, 205) observe continuing differences in cross-border regions that accord with these insights: the British colonial legacy for Ghanaian citizens was "a more multi-ethnic, duty-based conception of citizenship focused on the local,

[23] Cooper 2014, p. 432-434.
[24] Page 2003, 486.

village political community," while in contrast, just across the border in French Côte d'Ivoire, citizens instead spoke of "a more straightforward, top-down paternalism reinforc[ing] the perception of unequal levels of power between the state and local people." This distinction is crucial: if citizens today continue to view political authority as the purview of the center, this limits political action and entrepreneurialism. Over time, we propose that this difference in beliefs about the locus of power may increase the likelihood that ordinary citizens engage in self-directed political action.[25] For example, Maclean (2010, 213) again finds that when asked what was most important for village-level decision-making, Ghanaians pointed to village-level political institutions, whereas Ivoirians named 'big men' who resided outside of the village. Similarly, Miles (1994, 311, 280-81) finds striking differences in Hausa villages straddling the Niger-Nigerian border in the extent to which ordinary citizens are empowered to act locally. Postcolonial francophone Nigerien villages retained many attributes of the colonial system, with development projects initiated and managed by the central state while in anglophone Nigeria, development initiatives were more often locally initiated. We thus propose that by decentralizing the locus of decision-making to local communities – however reconstituted or invented - indirect rule legitimated local arenas of political contestation and action that, over time, not only generated institutional capacity and citizen engagement but which also improved community economic development.

From an empirical perspective, we focus primarily on the empowerment of local government institutions. Though we expect the relevant local institutions today will differ from country to country and community to community, it is likely that this will often revolve around local governance, given the emphasis of introducing representative governance in Native

[25] For example, Miles (1994, 280) describes Nigerians as having a "spirit of private initiative and enterprise" that is lacking across the border in Francophone Niger.

Authorities in the 1950s.[26] Nonetheless, we also believe that grassroots community and development groups should be more common in former British colonies, and that such community groups would be more active. Further, traditional institutions themselves should be more active—and characterized by horizontal ties—than their counterparts in former French colonies. The important commonality is not a specific institution, but the orientation towards local political action capable of facilitating collective action on the part of citizens.

Mechanism 2: More Powerful Chiefs

Second, because indirect rule was fundamentally predicated on specifically bolstering the power and authority of traditional political actors, we may see stronger traditional authorities in British colonies that are positioned to help their community's coordination around questions of local development today. This mechanism rests on two assumptions: first, that indirect rule laid the groundwork for stronger, more authoritative chiefs in the contemporary period, and second, that these stronger leaders are better positioned to coordinate economic development today than their less empowered counterparts in former Francophone colonies.

Following the tradition of Mamdani (1996), the idea that indirect rule empowered chiefs is one of the core legacies highlighted by contemporary political scientists and economists. Indeed, recent scholarship finds that citizens living in areas administered under indirect rule are more likely to contact and trust their traditional leaders today, suggesting a persistent legitimacy gap.[27] This leads to the second assumption of such an argument: stronger traditional authorities may be better positioned to improve economic development because their authority serves as a

[26] For example, Laitin (1986, 155) documents the role of ancestral cities as a relevant localized cleavage among the Yoruba. While this cleavage persists, he notes that the introduction of elections after WWII undermined the authority of chiefs.
[27]Lechler and McNamee 2018.

coordination mechanism.[28] Where the state is weak, as in much of sub-Saharan Africa, the relative ability to sanction free-riders and organize action by producing common knowledge makes strong traditional leaders better positioned to help coproduce public goods.[29] A classic example would be a local government allocating the concrete and building materials for a new classroom at the local school, and the chief of the community organizing villagers to supply labor to build the classroom.

It is important to note that this second mechanism is not entirely distinct from the first; both involve overcoming the collective action problem through local empowerment. However, the first mechanism works *horizontally* at the community level, whereas the second emphatically works *vertically* through the chief and his office. Whereas the first mechanism theorizes the locus of power in the eyes of ordinary citizens—whether that be realized through the institutions of local government, village associations, or traditional organizations—the result is *collective* authority and decision-making. The second mechanism indicates that villagers are able to overcome the collective action problem specifically through mobilization by the chief him or herself, not through the empowerment of local institutions in general. Alternatively, we may find that traditional authorities in British colonies today are not considerably more powerful than those in French colonies if recent work that questions how stark the contrast was between the empowerment of chiefs in French and British colonies, arguing that variation within colonies was larger than across colonies, is correct.[30]

Mechanism 3: Stronger Ethnic Identities

[28] Olson 1971.
[29] Ostrom 1990; Baldwin 2016.
[30] Lange 2004; Lawrence 2016; Herbst 2000, 81–89. .

A third hypothesis offers a bottom-up explanation for why indirect rule has produced better economic outcomes: because indirect rule focused heavily on identifying (or generating) and then reifying and enforcing 'ethnic communities,' ethnic identities today should be stronger in former British colonies, providing a focal point for in-group mobilization.[31] In contrast, French assimilationism was predicated on the sole legitimacy of the French state, generating a conceptualization of citizenship that was more statist or nationalist than ethnic.[32] In this way, strong local group identities may generate behavioral incentives for individuals that can reorient their preferences towards group pay-offs by predisposing members to seek positive distinctiveness for their group, generating what Singh has called "a politics of the common good" (2011, 282).[33] Indeed, using Afrobarometer data, both Ali et al (2018) and McNamee (2019) find that citizens in areas that were ruled indirectly are more likely to identify with their ethnic community than with their national identity compared to citizens ruled directly.

This is the core insight of Social Identity Theory, which posits, first, that strong in-group identities can raise expectations about future reciprocity while, secondly, social networks threaten individuals with group sanction.[34] Collective action is then often considered to be easier to achieve in groups with strong group identities because such groups can more credibly commit to the social sanctioning of free-riders.[35] According to this logic, we should expect that citizens living in areas colonized by the British not only have stronger ethnic identities, but that the relative strength of these identities should produce both more robust networks and norms of in-

[31] LeVine 1964; Whittlesey 1937.
[32] Crowder 1964; Njoh 1997, 195.
[33] See Tajfel 1981; Turner et al. 1987. The ability of strong identities to help communities or elites overcome social dilemmas is now a robust finding, with recent work arguing that the relative presence or absence of strong social identities generates divergent development outcomes at the subnational level (E.g. Ostrom 1990; Habyarimana et al. 2007; Singh 2011).
[34] Apicella et al. 2012; Dionne 2015.
[35] E.g. Habyarimana et al. 2007.

group reciprocity that help communities on the former British side of the border overcome coordination dilemmas.

Of course, it bears recognition that strongly identifying with local or ethnic identities over a national identity can enflame local parochialisms at the expense of economic development. In particular, this is the argument that Ali et al (2018) make, though they do not empirically investigate the second step in the causal process, that ethnic identification would lead to poor economic outcomes. Nonetheless, it has long been argued that the ethnic character of economic redistribution in Africa has nefarious effects on national economic performance and state capacity. Thus, just because ethnic communities may be stronger in former British territories, this may not lead to better development outcomes.

The Creation of Cameroon's Dual Colonial Legacy

We employ a geographic regression discontinuity research design in Cameroon to explore the historical legacies of indirect and direct rule. Originally colonized by Germany, Cameroon was partitioned between the United Kingdom and France during World War I, when French and British troops drove the German colonial administration out of the colony in March of 1916. Because the British military had entered German *Kamerun* from Nigeria in the west while French troops entered from their southeastern base in French Equatorial Africa, the British administered the western areas of Cameroon while the French administered the east.[36]

It was only after the signing of the Treaty of Versailles that Britain and France formally negotiated their division of Germany's former colonies. For Cameroon, negotiations started with

[36] Crowder 1968, 252.

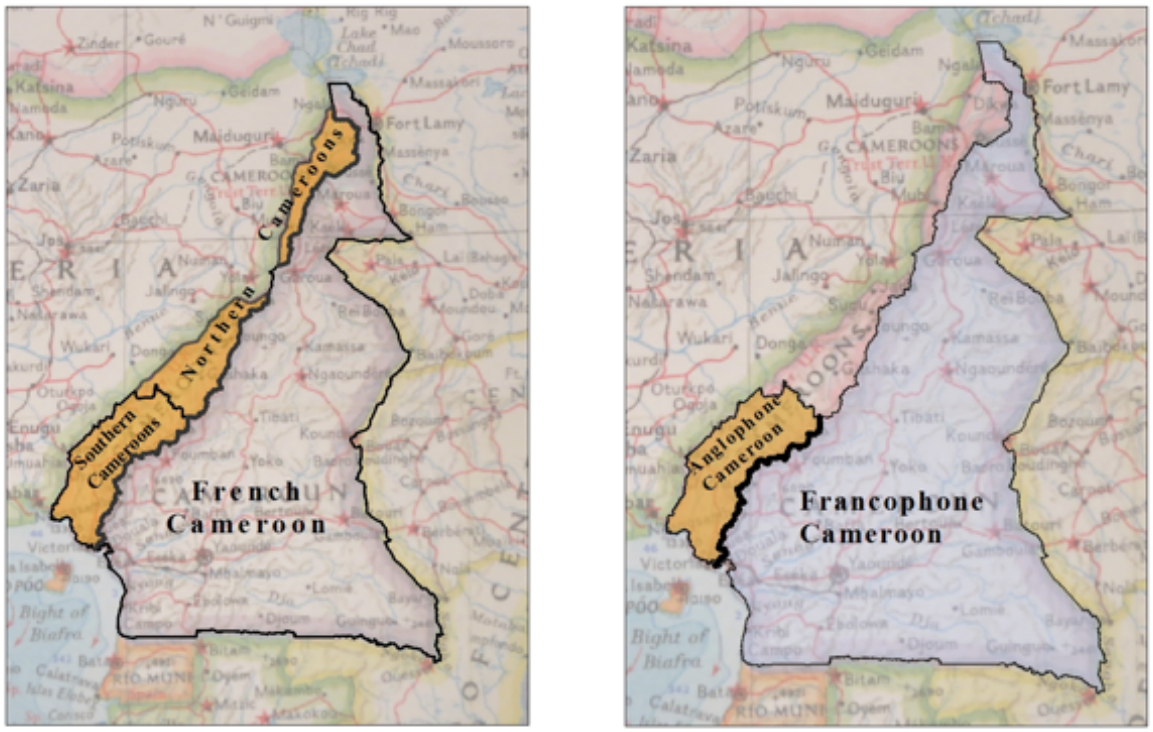
the assumption that France and Britain would largely retain the areas they already occupied.[37] Though neither country had grand ambitions for their newly acquired German territories, Britain was more interested in maintaining dominance over the Indian Ocean, leading them to cede much of their territory in Cameroun to the French, including the lucrative seaport of Douala, in order to retain Tanzania (German East Africa).[38]

The result of these negotiations was the Picot line, the border that separated French Cameroun from the British Cameroons (see Figure 1). As the British Colonial Secretary, Lord Milner, commented on the border when it was first drafted, "The boundaries of the zones of occupation are haphazard and, as a permanent arrangement, would be quite intolerable. They cut across tribal and administrative division, take no account of economic conditions, and are in every way objectionable."[39] Despite Lord Milner's protests, which rightfully pointed out that the border was not designed with an eye to local conditions, the final border was hardly amended. Numerous communities —including the Mungo, Balong, Bakossi, and Mbo—were divided as the Picot line cut through the Mungo Valley.[40] Along the coast, the Bakolle, Bamboko, and Bakweri peoples fell on the British side of the border, despite belonging to the same ethno-linguistic group as the Duala, who ended up under French rule.[41]

The result was two British territories, Northern and Southern Cameroons (together, the British Cameroons) divided from French Cameroon, which ran from Douala in the southwest up to Lake Chad in the North. Like much of the rest of the continent, the territorial division of

[37] Elango 2014, 117.
[38] Elango 2014, 120; Louis 1967, 59, 149.
[39] Quoted in Louis 1967, 148.
[40] Johnson 1970, 42.
[41] Ibid, 44.

German Cameroun was predicated more on the vagaries of European politics than local political, economic, and social considerations.



a. 1919 Division

b. Contemporary Internal Division

Figure 1: French-Anglo Partition of Cameroon

Figure 1a shows the division of German Kamerun into French Cameroun and the British Cameroons after WWI. Figure 1b presents a map of modern Cameroon, with the former British territory highlighted.

Direct and Indirect rule in French and British Cameroons

Both French Cameroun and the British Cameroons were designated League of Nations mandate territories in 1922.[42] Following WWII, both Cameroons became United Nations' trust territories, not dissimilar to their previous status as mandates. Though the trusteeship opened the territories to increased international scrutiny, the UN had little authority over how France and

[42] Rubin 1972, 46.

Britain administered their respective territories and the colonial administrative structures in both territories were wholly modeled on each power's other colonial possession.

As one of her first actions in Cameroun, France divided the colony into new administrative units (*circonscriptions* and *subdvisions*) without regard to existing German administrative borders or indigenous polities, following a long-standing emphasis on homogenous and centralized territorial administration.[43] Likewise, the French immediately began staffing all administrative positions—in public works, maritime controls, railway management, finances, and customs—with French bureaucrats. In 1921, the native courts established by the Germans were scrapped, and a full-scale reorganization of the chieftaincy system was begun in 1922, which explicitly sought to identify and undermine local power.[44] The French openly discuss this strategy of direct rule in their 1922 *Rapport Annuel*: "The regional chiefs, a creation of the French administration, have only the authority which is delegated to them; they have no power of their own; they are above all administrative organs."[45] The French built a bureaucratic structure radiating downwards from the apex of the *Ministère des Colonies*, through the High Commissioner of Cameroun, down to the seventeen *chefs de region*, and finally to the 46 subdivision administrators, all posts held by French nationals or, in a handful of cases, French-trained Cameroonians. In principle, village chiefs were empowered only to implement the orders of their subdivision administrator.[46]

In stark contrast, the British immediately began enthusiastically applying the principles of indirect rule on the other side of the border. LeVine (1964, 198) notes the great lengths that the British went to in order to identify the 'appropriate' traditional leaders throughout their new

[43] See Crowder 1964, 199 on this broader pattern.
[44] LeVine 1964, 34.
[45] Quoted in LeVine 1964, 95.
[46] Ibid, 98.

territory. The colonial authorities created dozens of assessments and intelligence reports on local social, economic, and political structures, and "by 1936, the government had recognized or created a wide variety of Native Authorities, most of them based upon a fairly accurate evaluation of the nature of the local socio-political structures."

The British granted substantial autonomy to the Native Authorities. While historically centralized groups saw their leaders upheld and reinforced, historically decentralized communities saw the British prop up village heads and elders in an attempt to create viable community leaders.[47] Having already spent twenty years developing the principles of indirect rule articulated by Lord Lugard at the turn of the century, Cameroon, one of Britain's last conquered colonies, saw one of the clearest implementations of indirect rule. Native Authorities served not only as an administrative apparatus, but also as engines of local development. By the eve of independence, Anglophone Cameroonians had embraced a motto of 'self-help' and developed strong norms around community participation in local development issues, a sharp contrast from their Francophone counterparts who had experienced a far more centralized authority under colonial administration.[48]

In 1960, Cameroun won its independence from France under the leadership of Ahmadou Ahidjo. In a 1961 plebiscite, British Southern Cameroon voted to reunify with French Cameroun as a federation while Northern British Cameroon voted to remain a region of Nigeria. Ahidjo gradually consolidated his rule over the next 20 years, running a single party autocracy and, in 1972, abolishing the federation between the anglophone and francophone regions to create a unified state. Today, the Northwest and Southwest 'anglophone' regions of Cameroon remain administratively identical to the former southern British Cameroon and their border, with the

[47] Chem-Langhëë 2004, 10.
[48] Gwaibi 2016, 101–2.

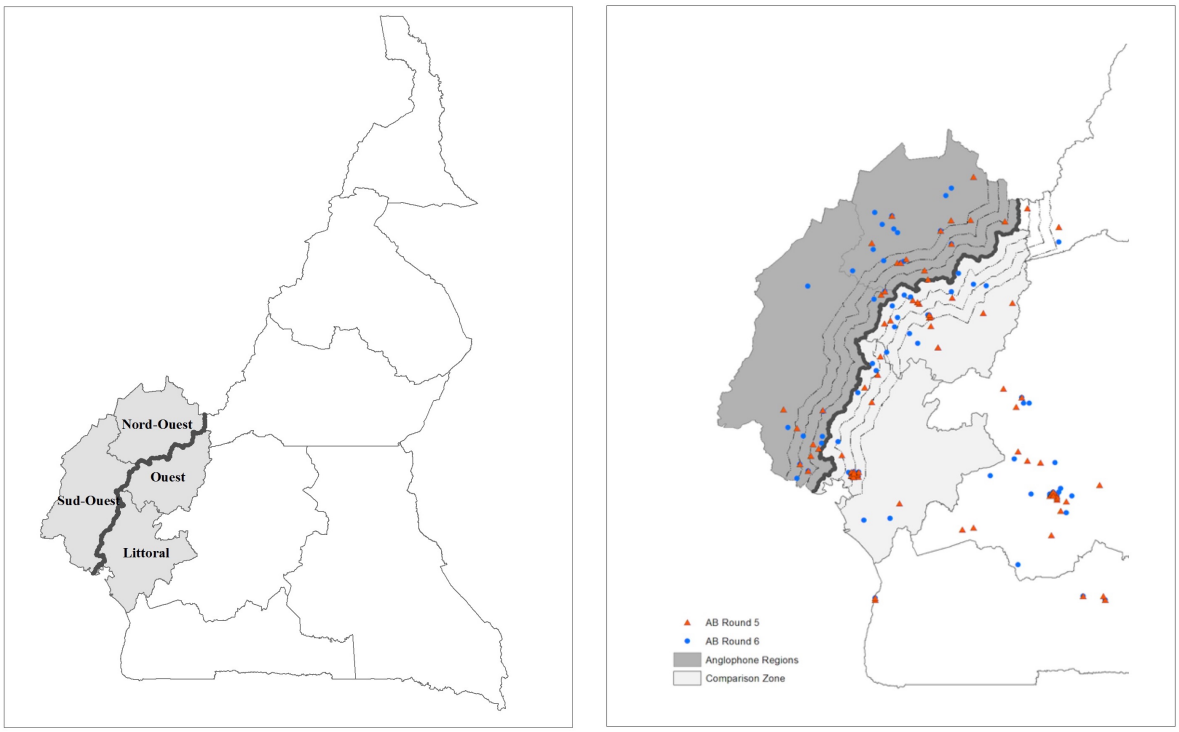
francophone Littoral, Ouest, and Adamaoua regions falling on the other side of the original Picot Line.

Research Design

In order to arbitrate between the three proposed mechanisms, we use a geographic regression discontinuity design within Cameroon's two anglophone regions, the Northwest and Southwest, and the francophone regions of Littoral and Ouest that they border. The regions under comparison as well as the spatial distribution of Afrobarometer survey clusters are displayed in Figure 2.

While a standard RD design assumes that distance to the cutoff point is one-dimensional (e.g. that being five kilometers from the border is always equivalent) the effect of British colonization five kilometers from the border near the coast might, for a variety of reasons, be different from its effect five kilometers from the border further inland.[49] Accordingly, we adopt a geographic RD design because it allows us to explicitly model the two-dimensional nature of the treatment by conducting a series of local linear regressions at different bandwidths from the border.[50] We include a polynomial function that accounts for each survey cluster's geographic location.

[49] See Keele and Titiunik 2015.
[50] Imbens and Lemieux 2008; Dell 2010; Mattingly 2017.



a. Comparison Zones

b. Afrobarometer Survey Clusters within 10km Intervals from the Border

Figure 2: Zones of Comparison and Survey Clusters

Map 2a shows the administrative districts of Cameroon included in the analysis; the Northwest (Nord-Ouest) and Southwest (Sud-Ouest) regions have a heritage of indirect rule under the British, while the Ouest and Littoral regions were ruled directly by the French. Map 2b presents the Afrobarometer sampling clusters used in the analysis, with 10km bandwidth lines displayed along the border.

By selecting bandwidths on either side of the cutoff, we estimate a linear regression with varying slopes and intercepts on both sides of the border.[51] One challenge of this approach is selecting appropriate bandwidths for analysis, which poses a trade-off between precision and bias.[52] Due to a small sample immediately adjacent to the border, we are limited in our ability to rely exclusively on observed variation at the cut-point, leading us to employ a semiparametric approach, adopting Mattingly's (2017) more transparent method of showing estimates at two-kilometer intervals from twenty to eighty kilometers from the border. This further illustrates the sensitivity of our results to different distances from the border.

[51] Jacob et al. 2012.
[52] Ludwig and Miller 2007; Imbens and Kalyanaraman 2012.

Our models can thus be specified as:

$$y_{icr} = \beta_0 + \beta_1 * anglophone_c + \beta_2 * X_{icr} + \beta_3 Z_c + \beta_3 W_c + \varepsilon_{icr}$$

The outcome variable of interest is represented by y for respondent i in cluster c and, because we pool survey rounds, in survey round r. *Anglophone* is a dummy variable that is scored one if a cluster falls on the 'treated,' anglophone side of the border and a zero if not. X_{icr} is a set of covariates, discussed below. To control for smooth functions of geographic location, we employ an RD polynomial - represented by Z_{ic} - modeled here as a linear function of longitude and latitude and, following Dell (2010) and Mattingly (2017), the latitude and longitude for each cluster's nearest point on the border, represented by W_c. Results are robust to using a more standard linear or cubic function of distance to the border as well as to a more demanding cubic polynomial. These replications as well as full model results for select bandwidths can be found in the Supplementary Materials.

We address two threats to RD designs through model specification. First, seemingly exogenously-drawn African borders may not be entirely arbitrary.[53] As detailed above, although the Picot line was drawn in Europe and should therefore be largely exogenous to indigenous sociopolitical realities, it is possible that other factors, notably natural features, may have both shaped the location of the border and influenced contemporary development outcomes.[54] To ensure that the potential geographic confounders are in fact smooth along the border and do not 'jump' in any fashion, we examine the average *altitude*, *precipitation*, *temperature* and *soil suitability* of 5km grid squares as well as the presence of precolonial states on either side of

[53] McCauley and Posner 2015.
[54] E.g. Fenske 2014.

Cameroon's internal border.[55] We find no statistically significant difference, suggesting that observable pretreatment characteristics are similar on either side of the border.[56]

A second concern is cluster randomization; the issue that randomization at the border did not occur at the level of the individual, but at the level of the 'cluster' or community. Thus, within-cluster outcomes may correlate as a function of their geographic proximity to each other, rather than the border. Given the smaller number of clusters in the Afrobarometer data, we retain individual respondents as our unit of analysis, but results are consistent if we adopt McCauley and Posner's recommended 'conservative' approach by analyzing data by cluster mean. These results are presented in the Supplementary Materials.

Data

We are interested in arbitrating potential mechanisms behind the relationship found in a series of recent studies that British colonial policies of indirect rule improved local economic development over the long run. Our empirical strategy begins by replicating and extending the findings of Lee and Schultz' (2012). Out of concern for space, these results are presented in the Supplementary Materials, but we find robust support for the argument that household wealth is indeed higher on the Anglophone side of the border. We also find that anglophone households are more likely to have access to drinking water, a locally coproduced public good. In contrast, we find no difference across anglophone and francophone regions in access to centrally supplied public goods using nightlight data as a proxy for access to the electricity grid. This suggests that the difference is *locally* generated.

[55] Fick and Hijmans, n.d.; soil suitibility data from Hengl et al. 2017.
[56] See Figures A1.1 and A1.2 in the Supplementary Materials

In order to test the relative merit of our three proposed mechanisms, we turn to data from the Afrobarometer surveys conducted in Cameroon (Rounds 5 and 6) to test our expectations that respondents in Anglophone regions of the country have distinct attitudes about local power, more powerful chiefs, and stronger ethnic identities. The Afrobarometer ran its first survey in Cameroon in 2013 (Round 5), and a second in 2015 (Round 6). The surveys reached 1,200 respondents each and were designed to be nationally representative. Merging the two survey rounds results in a total of 2,400 respondents across the country, or 720 respondents within the four regions we analyze. Note, however, that because some of our dependent variables were not asked in both survey rounds, the number of observations varies by model. When rounds are pooled, we include survey round fixed effects. For all models, standard errors are clustered by enumeration area.

We use several different public opinion questions to test observable implications of our three hypotheses.[57] All three hypotheses operate through two principle assumptions: first, the way in which colonial rule altered indigenous communities, and second the way in which this alteration affected long-term local economic development. We attempt to measure both assumptions for each mechanism. In regard to the first hypothesis, we look at two primary measures of the legitimacy of local institutions as well as two measures of the extent to which people act through local institutions.[58] For the former, the first question we include asks the respondent how much they think that local government councilors listen to what "people like you have to say," and, secondly, how much the respondent approves of the job of their local councilor in general. We also include two behavioral questions about how often the respondent

[57] Full question wordings and response distributions can be found in the Supplementary Materials.
[58] We also look at a battery of questions about the performance of local government in order to measure the impact that this local empowerment has on actual outcomes; see Appendix 5 in the Supplementary Materials.

has contacted an official at a government agency during the past year, and whether or not the respondent is a member of a 'voluntary association or community group.' We should expect citizens of former British colonies to be more active in local politics—whether by interacting with formal institutions or voluntary association—and therefore more likely to contact the government and join community groups.

It is important to note, first, that the hypothesis does not work exclusively through the institutions of local government; local institutions could include precolonial institutions, community groups, or simply institutionalized community meetings. Unfortunately, because of our reliance on the Afrobarometer data, the empirical focus of this article is primarily on local government institutions. One of the benefits of testing these mechanisms in Cameroon, however, is that government institutions there are formally identical on either side of the border. Francophone and anglophone citizens in Cameroon have the exact same postcolonial history of formal state institutions. Thus, if we find evidence that anglophone Cameroonians find their local government institutions more efficacious and legitimate, it cannot be through institutional design, but is more likely due to the mechanism of grassroots engagement and animation of these institutions. Further, such a finding would be especially robust in the context of Cameroon, where anglophones are generally more oppositional to the government.

Second, if former British colonies inherited an improved capacity to act locally by virtue of stronger traditional leaders, then their citizens should, on the one hand, view their traditional leaders as stronger and more legitimate, but also interact with them more. If strong traditional leaders are the cornerstone of collective action in local communities (as opposed to community-based institutions), then ordinary citizens should have relatively higher frequency of contact with them, whether because they are more often called by these leaders to perform communal labor,

or because they go to their traditional leaders for economic or development assistance. Specifically, Rounds 5 and 6 of the Afrobarometer ask four questions about traditional leaders: 1) How much do you trust traditional leaders, 2) Thinking of traditional leaders, how many do you think are involved in corruption, 3) How much do you approve of the job of your traditional leader over the past 12 months, 4) How often have you contacted your traditional leader over the past 12 months. The first three questions measure the strength or legitimacy of the traditional leader while he fourth question gets closer to a behavioral measure of the chief as a focal point for collective action.

Finally, we use three questions to assess whether ethnic identities are more salient in former British colonies, and whether individuals view ethnic identities or networks as important to political or economic development. The first question measures the salience of the respondent's identity, asking the respondent to choose between their national or their ethnic identity; citizens in former indirectly-ruled territories should be more likely than citizens in former directly-ruled territories to identify with their ethnic identity. The next two questions capture the behavioral aspects of the third mechanism: not only should citizens under indirect rule identify more with their ethnic communities, they should also mobilize politically and economically around these identity networks. We thus use a question unique to the Cameroonian Round 6 survey that asks respondents whether belonging to a particular ethnic group 'assist people rise to top positions in public office' as well as the classic Afrobarometer measure of this, which asks respondents to choose whether an elected leader is "obliged to help their home community first" or whether leaders "should not do anything that favors their own group over others." Strong ethnic identities are theorized to produce better economic outcomes because of their ability to mobilize behavior towards in-group members. If the ethnic mechanism is at a

play, we would predict that stronger ethnic communities would value ethnic networks and 'take care of each other' before others.

In addition to the primary measure of a person's location on either side of the border, we also include the respondent's *gender, education level* and *age* and a dummy variable that takes the value of one if a cluster is *rural*. A measure of the *logged population*, the estimated number of people living in 5km grid squares around each survey cluster, taken from the WorldPop spatial population data, captures the relative ease of collective action and public goods delivery. We also add two sets of control variables: the first, *Proximity to the Central State*, is measured with *distance from the regional capital* and *distance from Yaoundé*, Cameroon's capital, to address the concern of Herbst (2000) and others that the power of the colonial and postcolonial state have been felt more strongly near centers of power than further away.[59] Second, because our results might be driven by the relative favorability of geographic conditions to economic development, *Geographic Controls* captures a suite of attributes of a survey cluster's location: a cluster's altitude, the average level of annual precipitation and average annual temperature and the soil suitability for agriculture, measured by soil captation rate at 15cm.[60]

Results

The results from the data are presented in Figures 3-5. These figures report the estimated coefficients of falling on the formerly British side of the border along the y-axis. Positive coefficients thus represent a positive effect for exposure to indirect rule under British colonization. While the y-axis is the estimated effect, the x-axis reports the distance to Cameroon's internal border. Each graph displays the result of 30 different regressions estimated at increasingly wide bandwidths from the border, measured in two-kilometer increments. We smooth these results with a line that connects our estimated coefficients. Ninety-five and ninety-percent confidence intervals are also reported. For the most part, estimates are quite smooth

[59] Importantly, Cameroon's contemporary regional capitals correspond with colonial district offices.
[60] Hengl et al. 2017.

across bandwidths, indicating that the results are quite robust. However, at very narrow bandwidths (e.g. very close to the border), there are sometimes very few respondents (depending on whether the question was asked on both rounds as well as the rate of nonresponse), resulting in some 'jumping' of estimated coefficients. Given the small sample size immediately at the border, we begin our estimation at the twenty-kilometer mark, moving upwards to eighty-kilometers, where we should expect sampling clusters to be less comparable. The dependent variable is noted in the subtitle of each graph.

The central theoretical expectation of the first mechanism is that because of its decentralized decision-making structure, indirect rule empowered communities to act locally, imparting greater legitimacy on local governing institutions. This, we argue, can shed light on broader finding in the literature that Anglophone communities seem to be better positioned to coordinate for local development and wealth acquisition. The data presents distinct findings: anglophone citizens are more likely to see local institutions as legitimate, to believe that ordinary citizens have the capacity and to engage in politics and local civic life.[61]

First, citizens from the anglophone regions are more likely to see their local government as legitimate. Figure 3a shows that citizens living in areas colonized by indirect rule are consistently more likely to report that their local councilors listen to ordinary people; within 30 kilometers of the border, for example, citizens on the former-British side score 0.3 points higher on the four-point scale – indicating greater councilor responsiveness - than citizens who live on the former-French side. In addition, anglophone citizens are also more likely to approve of the job of their local assemblyman (Figure 3b). On a four-point scale from 'completely approve to

[61] Additional robustness checks, reported in the supplementary materials, indicate that the results are not overturned if we drop the urban center of Douala or include the entire countrywide sample. Placebo borders indicate that the results are in fact driven by the border and not some other southwest to northwest feature.

'completely disapprove,' the average anglophone citizen living within 20km of the border, our smallest bandwidth, 'approved' of the job of their assemblyman while their counterpart on the former-French side 'disapproved.'

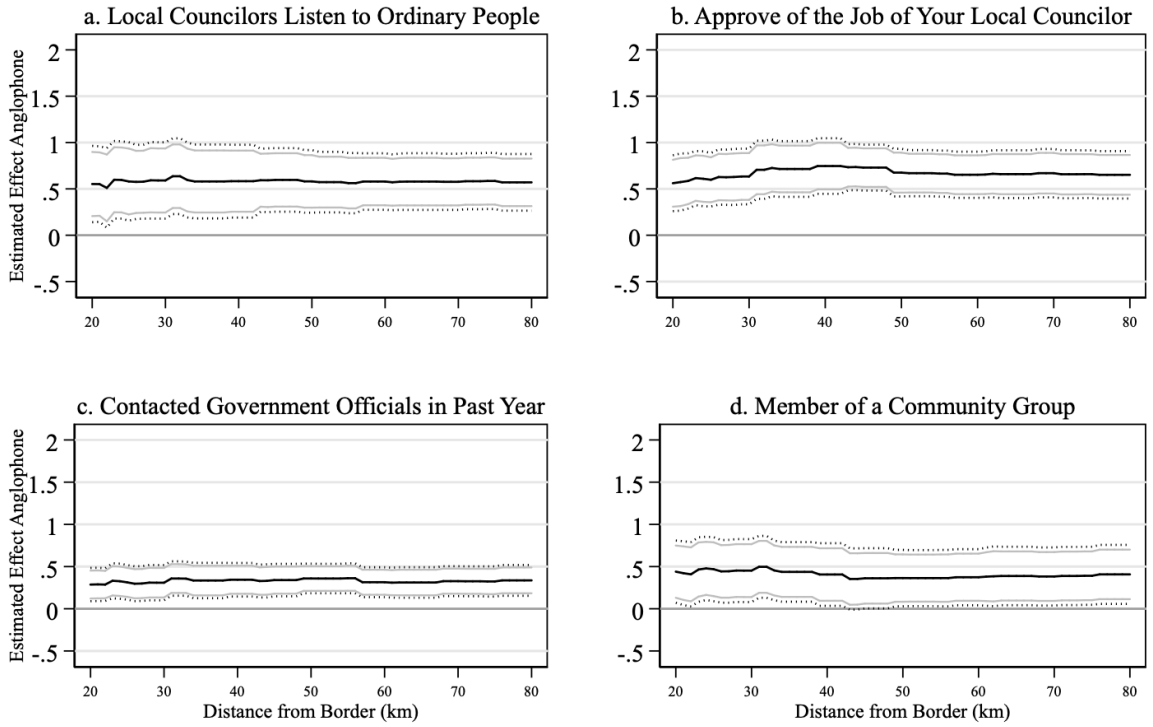


Figure 3: Indirect Rule Empowered Local Communities

Figures 3a-d report the estimated coefficients of falling in Anglophone regions of Cameroon. A positive effect on the y-axis indicates a positive effect for exposure to indirect rule. The x-axis presents the results of 30 different regressions that increase the distance from the border in 2km increments. Results are smoothed by a line connecting estimated coefficients. Ninety-five and ninety-percent confidence intervals are also reported.

We also present results from two models estimating respondent's reported political and community participation. All else equal, citizens living on the side of the border colonized under indirect rule are more likely to contact government officials than are citizens on the direct rule side of the border, as seen in Figure 3c. Even though few citizens contact government agencies (of all Cameroonians across two survey rounds, only 12.3 percent reported any contact), indirect rule still appears to consistently increase citizen engagement with their government. Further,

citizens from the former British territory are also more likely to be an active member of a community group, though this finding becomes statistically weaker at wider bandwidths (Figure 3d). At 30 kilometers from the border, anglophone respondents score, on average, nearly a half point higher on the four-point scale of associational membership than their francophone counterparts. These findings suggest that, when compared to francophones, anglophones are more likely to both approve of the institutions of local government as well as to actually act locally.

We find mixed evidence for the second mechanism that indirect rule created stronger traditional authorities who today help coordinate local collective action. These results are reported in Figure 4. Controlling for a host of ecological and demographic factors, citizens on the former-British side of the border do appear to be more trusting of traditional leaders than citizens on the former-French side of the border at the cut-off (a finding that is consistent with Lechler and McNamee 2018), and that they have more favorable job approval of their traditional leaders. There is not robust support that anglophones consistently view traditional leaders as less corrupt or are more likely to contact their traditional leaders.

We see this last question as most critical to the analysis, because it captures the operating logic of the link between strong leaders and economic development. Strong leaders lead to development precisely because they act as coordinating mechanisms within their communities; taking a more proactive role in mobilizing and sanctioning individuals within their purview. While traditional leaders may be more trusted in Cameroon's anglophone regions, this trust does not appear to translate into more contact, which is central to the explanation of how customary leaders promote development. Nonetheless, it is clear that traditional leaders are more trusted and approved of, and thus indirect rule appears to have had important long-term effects on

traditional authority in these communities. Further, the question specifically asks if the respondent contacted a traditional authority about a problem; it does not take into account communal labor, which is another way through which strong chiefs may facilitate local development. We thus find the evidence inconclusive.

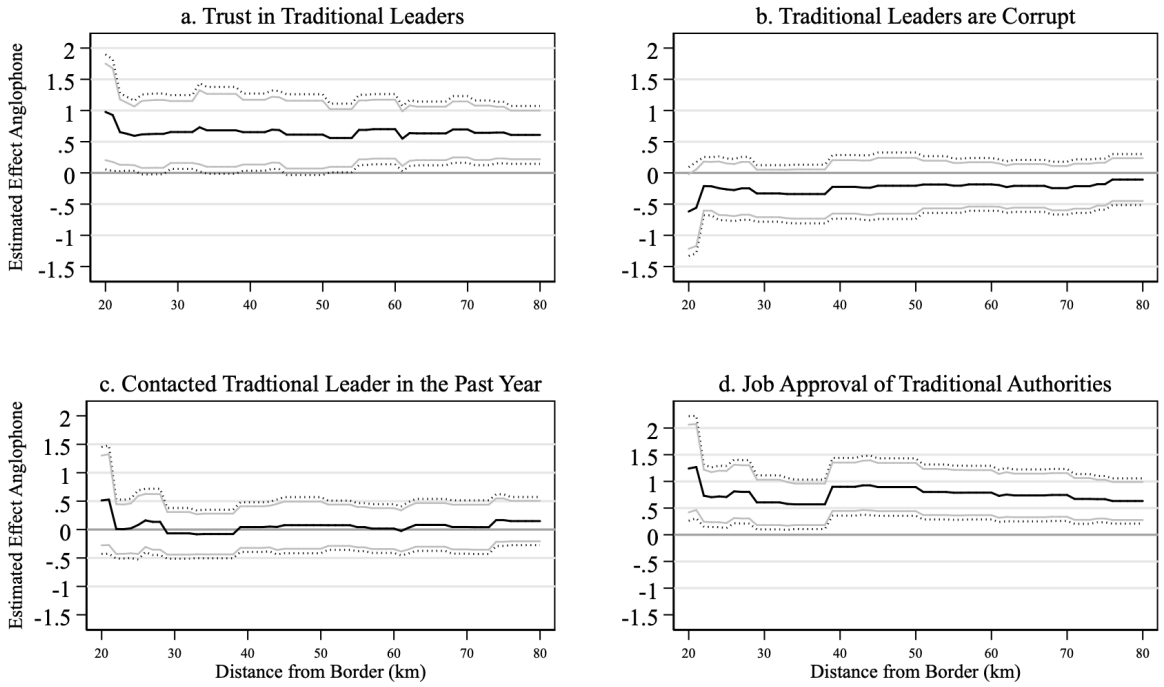


Figure 4: Indirect Rule Strengthens Traditional Leaders

Figures 4a-d report the estimated coefficients of falling in Anglophone regions of Cameroon. A positive effect on the y-axis indicates a positive effect for exposure to indirect rule. The x-axis presents the results of 30 different regressions that increase the distance from the border in 2km increments. Results are smoothed by a line connecting estimated coefficients. Ninety-five and ninety-percent confidence intervals are also reported.

The third mechanism predicts that indirect rule increased the salience of ethnic identity and the strength of ethnic communities. Figure 5 presents the estimates for the three dependent variables that capture a respondent's attachment to and beliefs about ethnic identity. Again, the data provides mixed evidence. On the one hand, Figure 5a reveals that, consistent with the findings of Ali et al (2018) and McNamee (2019), when compared to citizens on the direct rule side of the border, citizens on the indirect rule side of the border are considerably more likely to

identify with their ethnic group than as a 'Cameroonian.' This finding lends support to the idea that indirect rule strengthened ethnic identities.

However, the theorized mechanisms linking this ethnic attachment to collective action are not borne out in the data. Figure 5b suggests that despite the greater connection to their ethnic identities, Cameroonians on the indirect side of the border are perhaps slightly *less* likely than Cameroonians on the former French side to believe that ethnic networks help people "to rise to top positions in public office in this country," although this result is not statistically significant at most bandwidths. This contradicts the logic of the third mechanism, which relies on the idea that ethnic communities improve the provision of public goods because of the strength of the networks they produce. In addition, as Figure 5c reveals, citizens on the formerly British side of the border are not any more or less likely than their counterparts on the French side to believe that elected officials should help their own groups before they help others. Again, this contradicts the mechanism's logic because we should expect indirect rule to produce strong in-group identities *that lead to* in-group preference.

Although it appears that indirect rule did indeed produce more salient ethnic identities, it is less clear that these identities produced the strong in-group reciprocity norms that are theorized to generate better economic outcomes. Importantly, we find no evidence that anglophone areas are more ethnically homogenous. Estimating a Herfindahl index from self-reported ethnicity data in the Afrboarometer sample indicates no meaningful difference in the average level of ethnic fractionalization for arrondissements within 80 kilometers of Cameroon's internal border. The average level of ethnic fractionalization for Francophone arrondissement is 45.1 versus 48.6 for anglophone sample sites, a difference that is not statistically significant at the 0.05 level.

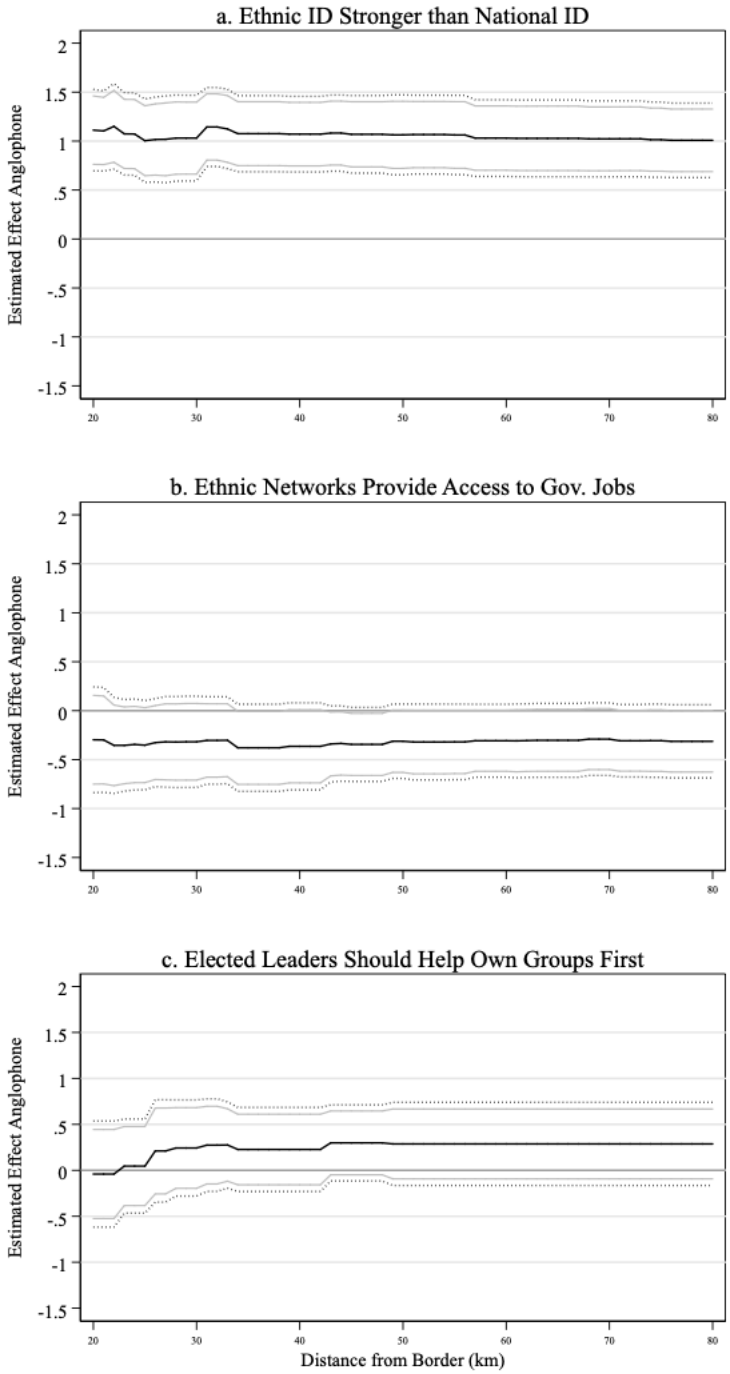


Figure 5: Indirect Rule Strengthens Ethnic Identities

Figures 5a-c report the estimated coefficients of falling in Anglophone regions of Cameroon. A positive effect on the y-axis indicates a positive effect for exposure to indirect rule. The x-axis presents the results of 30 different regressions that increase the distance from the border in 2km increments. Results are smoothed by a line connecting estimated coefficients. Ninety-five and ninety-percent confidence intervals are also reported.

Taken together, we find that indirect rule had a long-term distinct impact on the beliefs of citizens. In Cameroon, citizens living under a legacy of British indirect rule are more likely to approve of the work of their local councilors and traditional authorities and to identify with their ethnic group than are their brethren living under a legacy of direct rule. The data is less clear on how these beliefs translated into local economic development. The best evidence suggests that the empowerment of local communities generated long-term feedback loops in the animation and legitimation of local institutions, such that ordinary citizens—even today—are more likely to engage with their local government offices and join associational groups. There is less evidence that citizens of indirect rule actively seek out their chiefs for development assistance or use ethnic networks specifically for development purposes.

Robustness Checks

Solutions for Threats to Endogeneity

We are aware of several threats to the identification strategy and take several steps to minimize these threats. First, it is possible that the line between the anglophone and francophone regions of Cameroon represent both colonial as well as post-colonial treatments. Others have identified and theorized the impact of such multiple treatments; for example, Acemoglu et al. (2014) argue that indirect rule weakened the postcolonial state in Sierra Leone, but, in contrast, that this strengthened the state in Uganda and Ghana as a function of postcolonial politics. Unlike other cross-border studies, for example of Ghana and Côte d'Ivoire (e.g MacLean 2010) or Zambia and Malawi (e.g. Posner 2004), our study holds the postcolonial state constant, specifically in regards to the major confounders of national institutions. Nonetheless, because the

anglophone-francophone border overlaps with other administrative units,[62] the postcolonial experience of the Northwest, Southwest, Ouest and Littoral regions may still differ in important ways related to economic development.[63] In particular, some of the most vocal opposition to the current regime is centered in the Northwest region. Further, Cameroonians living on the anglophone side of the border complain of receiving relatively fewer investments from the central government in comparison to their francophone counterparts.

We are skeptical that the immediate cross-border francophone area has received better treatment from the central government than the anglophone side for three reasons. First, the corridor between Douala and Bafoussam on the francophone side of the border was historically the largest site of government opposition: during the late colonial and early postcolonial period, Bassa and Bamiléké territories were at the heart of the UPC insurrection, and the subsequent intense government repression lasted until the 1970s.[64] It was not until the 1990s that highly vocal claims of discrimination flipped, as anglophones came to perceive themselves as specifically disadvantaged by the state. Secondly, what empirical evidence exists does not support the claim that the anglophone regions receive disproportionately fewer resources than the Ouest or Littoral regions, with the exception of investments in Douala.[65] As Lee and Schultz demonstrate, and as we replicate in the Supplementary Materials, central-state led development is no better on the francophone side of the border than the anglophone side. Finally, as reported in the supplementary materials, we find no significant difference in reported favoritism to questions specifically asking about regional favoritism and bias.

[62] Keele and Titiunik 2015, 133.
[63] A related concern is that anglophone regions might fare better economically because of their proximity to Nigeria and Nigerian markets. Controlling for each cluster's logged distance to the Nigerian border does not alter our results.
[64] As detailed in the Supplementary Materials, controlling for ethnically Bassa or Bamiléké respondents does not alter our results.
[65] Letsa 2017.

We also address the concern of compound colonial treatments.[66] French and British colonization differed in a number of ways apart from direct and indirect rule, and it is possible that these aspects of colonialism also affected economic trajectories. We add a series of controls to our models to address the most robust alternative arguments: first, numerous studies have argued that British education policies—particularly the role of the Protestant missions that largely accompanied British colonialism—have beneficially impacted current development when compared to former French colonies.[67] Accordingly, we control for each survey cluster's *Logged Distance to European Mission* (1960). Secondly, French and British economic investments varied across their colonies, and scholars argue that these investments have created spatial inequality in contemporary development outcomes, leading us to control for a cluster's *distance to the colonial-era railroad*, to account for the effects of proximity to colonial investments.[68] Similarly, a measure of a survey cluster's *logged distance from the coast* approximates relative exposure to early coastal commerce, notably the Atlantic slave trade.

As reported in Table 1, the inclusion of these colonial era controls does not alter our findings. Although exposure to the colonial state does appear to correlate with greater perceptions of corruption among traditional authorities, we otherwise find little relationship between exposure to the colonial state and the mechanisms. Most importantly, the inclusion of these variables does not overturn the effect of residing in Cameroon's Anglophone regions.

[66] A related issue concerns timing. Though we take great care to establish the historicity of direct and indirect rule on either side of the border and consider the possibilities of compound treatments across time, some compression of history is inevitable. It remains possible that indirect rule impacted development through some other, untheorized mechanism and that economic development affected attitudes, resulting in the erroneous conclusion that these attitudes are mechanisms, when in fact they are outcomes. Unfortunately, we cannot test this due to a lack of public opinion data for Cameroon prior to 2013. Nonetheless, we see no other contending theories that might link indirect rule to economic development and, crucially, we have no theoretical priors as to why economic development would produce the findings we document here.
[67] Albaugh 2014; Woodberry 2012.
[68] E.g. Huillery 2009.

Table 1: Inclusion of Colonial Era Controls

	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
Panel A: Local Gov. Legitimacy Mechanism				
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.617 (0.153)	0.731 (0.131)	0.317 (0.098)	0.375 (0.177)
ln D Mission	-0.002 (0.059)	-0.004 (0.052)	-0.017 (0.025)	0.009 (0.039)
ln D Colonial Railway	-0.059 (0.052)	-0.081 (0.038)	-0.003 (0.026)	0.104 (0.045)
ln D Coast	-0.079 (0.086)	-0.143 (0.067)	0.013 (0.044)	0.052 (0.103)
Proximity to Central State	Y	Y	Y	Y
Geographic Controls	Y	Y	Y	Y
Observations	872	819	934	930
R2	0.139	0.148	0.112	0.160
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.493 (0.299)	-0.186 (0.219)	0.078 (0.215)	0.621 (0.249)
ln D Mission	-0.067 (0.099)	0.019 (0.056)	-0.081 (0.073)	-0.045 (0.101)
ln D Colonial Railway	-0.014 (0.092)	0.047 (0.052)	0.057 (0.070)	-0.089 (0.078)
ln D Coast	0.092 (0.117)	0.094 (0.075)	0.039 (0.135)	0.029 (0.081)
Proximity to Central State	Y	Y	Y	Y
Geographic Controls	Y	Y	Y	Y
Observations	458	443	476	414
R2	0.066	0.071	0.169	0.116
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Their Own Community	
	(9)	(10)	(11)	
Legacy of indirect rule	1.072 (0.177)	-0.478 (0.191)	0.481 (0.216)	
ln D Mission	-0.013 (0.050)	-0.098 (0.050)	0.146 (0.047)	
ln D Colonial Railway	0.084 (0.049)	0.106 (0.056)	-0018 (0.049)	
ln D Coast	-0.120 (0.095)	0.149 (0.112)	-0.137 (0.132)	
Proximity to Central State	Y	Y	Y	
Geographic Controls	Y	Y	Y	
Observations	896	797	445	
R2	0.285	0.118	0.041	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

An additional concern is that our findings might be endogenous to sorting at the border, or the idea that 'treated' individuals from the anglophone side may have migrated to the 'non-treated' side (or vice versa).[69] We are aware of only two systematic forms of cross-border migration during the colonial and postcolonial periods: rural to urban migration by Anglophones to Douala, the country's economic capital, and laborers from the sub-region migrating to work on the agricultural plantations clustered on the fertile soils of Mount Cameroon. The latter was particularly prominent during the German colonial period, when migrants moved to the Southwest from Eastern *Kamerun*. However, both the French and British tightened security at the new border after WWI, restricting cross-border trade and migration. As the French-English divide widened with time, the most common form of migration to these plantations was actually from Nigeria, as the Igbo became an increasingly large presence in the area. During the postcolonial period, migration to the Southwest region increasingly came from the Northwest.[70] By the 1980s, for example, Koning reports that less than one percent of sampled laborers in Anglophone plantations came from Francophone regions of the country.[71]

This sorting presents two threats. On the one hand, if citizens from the 'control' group (those exposed to direct rule) migrate to areas exposed to the treatment (indirect rule), then we weaken the treatment effect. On the other hand, if sorting is self-selecting, there may be some confounding of the treatment effect on unobserved factors, such as 'industriousness' or community-level effects which might hamper (or empower) collective action. We address the potential impact of cross-border sorting induced by the colonial plantation economy in extensions in the Supplementary Materials by interacting the treatment with a cluster's distance

[69] McCauley and Posner 2015.
[70] Geschiere 2009, 57; Konings 1993.
[71] Konings 1993, 68.

measure to Mount Cameroon as well as by dropping clusters in Fako department, home to Cameroon's plantation economy, altogether. This does not alter our results, nor does excluding respondents from Douala, an effort to control for rural-urban migration. This reassures us that our findings are unlikely to be driven by sorting at the border.

Is this Social Capital?

Our results suggest that the long-term legacies of indirect rule are most likely to run through the impact that British colonial administration had on the nature of local community life. Our documentation of subnational differences in local governance may remind some of Putnam's (1993) famous study of Italy's divergent civic traditions. For Putnam and others (e.g. Fukuyama 1995), social capital is tightly connected to the question of social trust; Putnam argues that social capital-cum-trust improves the capacity of communities to coordinate, especially around public goods delivery and questions of governance. Yet, as presented in Figure 6, we find no evidence that Anglophone Cameroonians have higher levels of trust in their social relations or in their political institutions; in sharp contrast, they appear to have lower levels of social trust, as measured in reported trust in their family, friends and neighbors.

This finding in and of itself need not discredit the role of social capital. Others studies of social capital in Africa directly question whether trust plays the critical role assigned by Putnam; Widner and Mundt (1998, p. 15), for example, suggest that social capital may be most impactful on government performance via its capacity to increase the circulation of information or by encouraging broader political participation. Here as well, however, we see no systematic differences. Anglophones are not more likely to report higher frequencies of discussing political issues with others, or rates of generic political participation, such as protesting or voting. Together, these results lead us away from the conclusion that this is clearly a story of social

capital. Still, we view further research into other theorized tenets of social capital, such as the role of network ties and community norms, as a fruitful avenue for future research.[72]

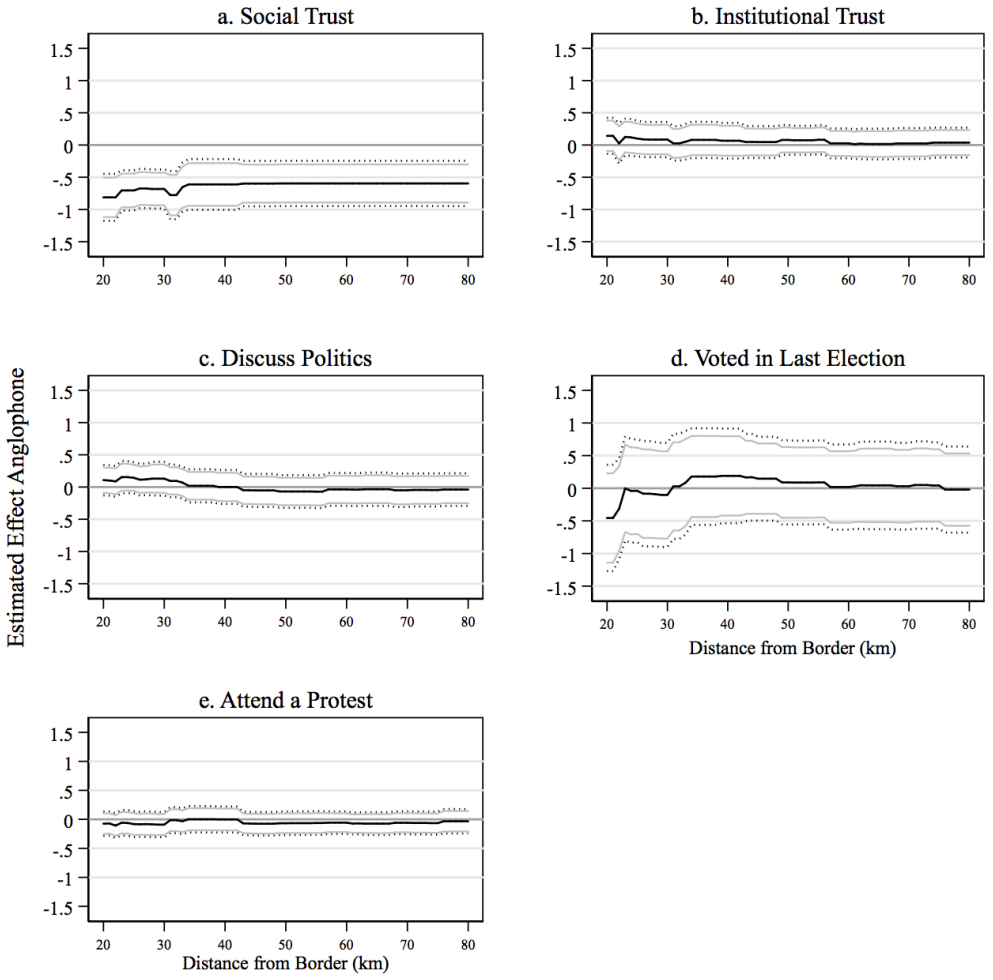


Figure 6: Is this Social Capital?

Figures 6a-e report the estimated coefficients of falling in Anglophone regions of Cameroon. A positive effect on the y-axis indicates a positive effect for exposure to indirect rule. Social Trust is measured as an additive index of reported trust in family, friends and neighbors. Institutional trust is an additive index of trust in political institutions. The x-axis presents the results of 30 different regressions that increase the distance from the border in 2km increments. Results are smoothed by a line connecting estimated coefficients. Ninety-five and ninety-percent confidence intervals are also reported.

[72] See Woolcock 2010.

Do the findings hold outside of Cameroon?

Our findings from Cameroon provide the most support the first mechanism: indirect rule legitimated local governments and reoriented citizens towards their communities. This finding is consistent with the in-depth qualitative studies of MacLean (2010) and Miles (1994) in borderlands between former British and French colonies, suggesting that our results may be indicative of broader patterns. To test this more robustly, we turn again to AfroBarometer data to examine whether our results extend to former British and French colonies across sub-Saharan Africa. Pooling Rounds 5 and 6, we replicate our models from Cameroon to the extent possible with the twenty-six former French and British colonies sampled over the two survey rounds.[73] The results are in Table 2 below.[74] Note that our second measure testing ethnicity, whether individuals perceive ethnic networks as an avenue to jobs, is a question specific to Cameroon and not available in the broader sample.

Table 2 again lends clearest support to the robustness of the first mechanism. Citizens of former British colonies are consistently more likely to both believe that their local government officials are more responsive and to report behaviors consistent with more local empowerment. In contrast, citizens of former French colonies are less likely to contact the government or join community groups and are more negative about their local officials.

[73] The sample includes Benin, Botswana, Burkina Faso, Cameroon, Cote d'Ivoire, Gabon, Ghana, Guinea, Kenya, Lesotho, Madagascar, Malawi, Mali, Namibia, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe. Sudan and Gabon were only surveyed in Round 6. We do not have the same level of subnational granularity on the pooled Afrobarometer data. In lieu of this, we estimate geographic coordinates as well as the distance to the national capital by assigning rural respondents the coordinates of the centroid of their districts (the lowest unit provided). Urban respondents are matched to the district capital or the city if known.

[74] Note that the social capital findings reported in the previous section also appear to generalize (see Supplementary Materials).

Table 2: Generalizability of the Argument

Panel A: Local Gov. Legitimacy Mechanism				
	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.268 (0.073)	0.226 (0.083)	0.168 (0.026)	0.295 (0.072)
Proximity to Central State	Y	Y	Y	Y
Geographic Controls	Y	Y	Y	Y
Observations	69835	65672	77172	77148
Country N	26	25	26	26
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve of Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.076 (0.075)	-0.131 (0.069)	0.155 (0.049)	0.197 (0.089)
Proximity to Central State	Y	Y	Y	Y
Geographic Controls	Y	Y	Y	Y
Observations	37731	36011	39319	34402
Country N	26	26	26	25
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID		Leaders Should Help Their Own Community	
	(9)		(10)	
Legacy of indirect rule	0.711 (0.087)		0.039 (0.062)	
Proximity to Central State	Y		Y	
Geographic Controls	Y		Y	
Observations	72687		36951	
Country N	25		24	

Results of mixed level models estimating the effect of exposure to indirect rule (residing in a former British colony). Robust standard errors in parentheses. Models include all respondents in former British and French colonies sampled in Rounds 5 and 6 of the Afrobarometer. Survey round fixed effects included when appropriate. All models include controls for the respondent's age, gender, education, whether they live in an urban or rural sampling unit. Note that Proximity to the Central State is measured here with the logged distance to the national capital from the centroid of their second-level administrative unit. Models include a dummy variable for whether or not the respondent comes from a former settler colony.

We again find mixed evidence for the second hypothesis, but the specific results are inconsistent with the results from Cameroon. Similar to Cameroon, across Africa, citizens living under a legacy of indirect rule are more likely to approve of the job of their traditional leader but

are no more or less likely than citizens of former French colonies to see traditional leaders as corrupt. However, while Cameroonian anglophones are more trusting of traditional authorities, there appears to be little difference across British and French territories in general. Inversely, citizens of former British colonies are more likely to report contacting their customary authorities. As discussed in our analysis of our main results, we interpret these continent-wide results as confirming the distinct legacies of direct and indirect rule on the role of traditional authority structures. However, the imprecision of the estimates underlines the uncertainty of precisely if and to what extent more trusted traditional authorities are actually producing better development outcomes.

Finally, consistent with our findings in Cameroon, indirect rule appears to have broadly rendered ethnic identities more salient than did direct rule, though it is unclear how this translates into economic development, as citizens of former British colonies are not any more or less likely to believe that leaders should 'help their own communities' before helping the nation. We again conclude that while indirect rule appears to have altered ethnic salience, the impact of ethnic identification on actual development outcomes is not clear.

Conclusion

Recent scholarship on colonial legacies has argued that indirect rule has produced better contemporary economic outcomes for citizens than direct rule.[75] We add to these findings by turning our attention to *why* different forms of colonial rule would generate distinct legacies, focusing on ways in which colonialism may have altered the nature of local community life, joins a growing body of literature on behavioral historical legacies.[76] Indeed, in the wake of a

[75] Iyer 2010; Lee and Schultz 2012; Grier 1999.
[76] Acharya, Sen, & Blackwell, 2018; Pop-Eleches & Tucker, 2017.

renewed interest in historical legacies, we hope our findings help reorient scholarly interest to the question of *how* and *why* the past continues to matter in the present. Our core finding, that citizens who live in areas that were originally colonized by the British and administered under indirect rule are more likely to think and act locally is suggestive of one potential pathway, but we hope future work will probe the question of mechanisms to develop more robust insights.

It is important to note that although stronger local institutions can help facilitate collective action in the name of local development, they are not a panacea for all social ills. In particular, the empowering of local institutions may inadvertently undermine the centralization of the state, a condition that many argue (e.g. Ali et al. 2018) is also critical for the development of strong *national* institutions. This is highlighted in our finding that anglophones are less likely to identify as 'Cameroonians' than are francophones. Here we can see the specific challenges faced by modern states ruled by either indirect or direct rule. The findings of our study can be taken as evidence that former colonies—but especially former French colonies—would be well-served to legitimize local institutions, an idea encouraged by the trend towards decentralization in the multiparty era. Still, these efforts are not always fully or sincerely implemented, particularly in autocratic states like Cameroon.

Nor should potentially negative effects of local autonomy be underestimated, a point underscored by the crisis unfolding in the anglophone regions of Cameroon. Anglophones from the Northwest and Southwest regions are currently calling on increased autonomy from the central government, and threats of secession are becoming increasingly militant as violence escalates and the rule of law breaks down. Strong, legitimate local institutions can help facilitate collective action towards development during times of peace, but they may empower citizens to paradoxically act *against* the central government when local communities are threatened by the

state. Overall, we conclude that legitimate local institutions are critical for the empowerment of local communities, but that this alone cannot compensate for the problems posed by Africa's weak, postcolonial states.

References

Acemoglu, Daron, Isaías Chaves, Philip Osafo-Kwaako, and James Robinson. 2014. *Indirect Rule and State Weakness in Africa: Sierra Leone in Comparative Perspective*. Cambridge, MA: National Bureau of Economic Research. http://www.nber.org/papers/w20092.pdf (July 7, 2018).

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *The American Economic Review* 91(5): 1369–1401.

Albaugh, Ericka. 2014. *State-Building and Multilingual Education in Africa*. New York, N.Y.: Cambridge University Press.

Ali, Merima, Odd-Helge Fjeldstad, Boqian Jiang, and Abdulaziz Shifa. 2018. "Colonial Legacy, State-Building and the Salience of Ethnicity in Sub-Saharan Africa." *The Economic Journal* 0(0).

Apicella, Coren, Frank Marlowe, James Fowler, and Nicholas Christakis. 2012. "Social Networks and Cooperation in Hunter-Gatherers." *Nature* 481(7382): 497–501.

Baldwin, Kate. 2016. *The Paradox of Traditional Chiefs in Democratic Africa*. New York: Cambridge University Press.

Bertocchi, Graziella, and Fabio Canova. 2002. "Did Colonization Matter for Growth?: An Empirical Exploration into the Historical Causes of Africa's Underdevelopment." *European Economic Review* 46(10): 1851–71.

Brewer, Marilynn B. 1979. ed. R .J. (editor) Hernstein. 86(2): 307–24.

Brown, David. 2000. "Democracy, Colonization, and Human Capital in Sub-Saharan Africa." *Studies in Comparative International Development* 35(1): 20–40.

Bubb, Ryan. 2013. "The Evolution of Property Rights: State Law or Informal Norms?" *The Journal of Law & Economics* 56(3): 555–94.

Chem-Langhëë, Bongfen. 2004. *The Paradoxes of Self-Determination in the Cameroons under United Kingdom Administration : The Search for Identity, Well-Being, and Continuity*. Lanham, Md.: University Press of America.

Chiabi, Emmanuel. 1997. *The Making of Modern Cameroon*. Lanham: University Press of America.

Crowder, Michael. 1964. "Indirect Rule: French and British Style." *Africa: Journal of the International African Institute* 34(3): 197–205.

———. 1968. *West Africa under Colonial Rule*. London: Hutchinson.

Dell, Melissa. 2010. “The Persistent Effects of Peru’s Mining Mita.” *Econometrica* 78(6): 1863–1903.

Dionne, Kim Yi. 2015. “Social Networks, Ethnic Diversity, and Cooperative Behavior in Rural Malawi.” *Journal of Theoretical Politics* 27(4): 522–43.

Elango, Lovett. 2014. “Anglo-French Negotiations Concerning Cameroon during World War I, 1914-1916: Occupation," Condominium" and Partition.” *Journal of Global Initiatives: Policy, Pedagogy, Perspective* 9(2): 109–28.

Fearon, James, and David Laitin. 1996. “Explaining Interethnic Cooperation.” *The American Political Science Review* 90(4): 715–35.

Fenske, James. 2014. “Ecology, Trade, and States in Pre-Colonial Africa.” *Journal of the European Economic Association* 12(3): 612–40.

Fick, Steven, and Robert Hijmans. *Global Climate Data (World Clim v. 2)*. http://www.worldclim.org.

Firmin-Sellers, Kathryn. 2000. “Institutions, Context, and Outcomes: Explaining French and British Rule in West Africa.” *Comparative Politics* 32(3): 253–72.

Fukuyama, Francis. 1995. *Trust: The Social Virtues and the Creation of Prosperity*. Free Press.

Gerring, John, Daniel Ziblatt, Johan Van Gorp, and Julián Arévalo. 2011. “An Institutional Theory of Direct and Indirect Rule.” *World Politics* 63(3): 377–433.

Grier, Robin. 1999. “Colonial Legacies and Economic Growth.” *Public choice* 98(3–4): 317–335.

Gwaibi, Numvi. 2016. *Decentralisation and Community Participation: Local Development and Municipal Politics in Cameroon*. African Books Collective.

Habyarimana, James, Macartan Humphreys, Daniel Posner, and Jeremy Weinstein. 2007. “Why Does Ethnic Diversity Undermine Public Goods Provision?” *American Political Science Review* 101(4): 709–25.

Hengl, T et al. 2017. “SoilGrids250m: Global Gridded Soil Information Based on Machine Learning.” *PLoS ONE* 12(2).

Herbst, Jeffrey. 2000. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton: Princeton University Press.

Huillery, Elise. 2009. “History Matters: The Long-Term Impact of Colonial Public Investments in French West Africa.” *American Economic Journal: Applied Economics* 1(2): 176–215.

Imbens, Guido, and Thomas Lemieux. 2008. “Regression Discontinuity Designs: A Guide to Practice.” *Journal of Econometrics* 142(2): 615–35.

Imbens, Guido W., and Karthik Kalyanaraman. 2012. “Optimal Bandwidth Choice for the Regression Discontinuity Estimator.” *The Review of Economic Studies* 79(3): 933–59.

Iyer, Lakshmi. 2010. “The Long-Term Impact of Colonial Rule: Evidence from India.” *The Review of Economics and Statistics* 92(4): 693–713.

Jacob, Robin, Pei Zhu, Marie-Andrée Somers, and Howard Bloom. 2012. *A Practical Guide to Regression Discontinuity*. MDRC. https://eric.ed.gov/?id=ED565862 (May 8, 2017).

Johnson, Willard, and Obichere Collection. 1970. *The Cameroon Federation: Political Integration in a Fragmentary Society*. Princeton, N.J.: Princeton University Press.

Keele, Luke, and Rocío Titiunik. 2015. “Geographic Boundaries as Regression Discontinuities.” *Political Analysis* 23(1): 127–55.

Laitin, David. 1986. *Hegemony and Culture: Politics and Change Among the Yoruba*. University of Chicago Press.

Lange, Matthew. 2004. “British Colonial Legacies and Political Development.” *World Development* 32(6): 905–22.

Lapie, P. O. 1944. “The New Colonial Policy of France.” *Foreign Affairs* 23(1): 104–11.

Lawrence, Adria. 2017. “Colonial Approaches to Governance in the Periphery: Direct and Indirect Rule in French Algeria.” John Hopkins University. Working Paper.

Lechler, Marie, and Lachlan McNamee. 2018. “Indirect Colonial Rule Undermines Support for Democracy: Evidence From a Natural Experiment in Namibia.” *Comparative Political Studies* 54(14): 1858–1898.

Lee, Alexander, and Kenneth Schultz. 2012. “Comparing British and French Colonial Legacies: A Discontinuity Analysis of Cameroon.” *Quarterly Journal of Political Science* 7(4): 365–410.

Letsa, Natalie. 2017. “Voting for the Devil You Know: Understanding Electoral Behavior in Autocratic Regimes.” Doctoral Dissertation. Cornell University.

LeVine, Victor. 1964. *The Cameroons: From Mandate to Independence*. Berkeley: University of California Press.

LeVine, Victor T. 1964. *The Cameroons: From Mandate to Independence*. Berkeley: University of California Press.

Logan, Carolyn. 2009. “Selected Chiefs, Elected Councillors and Hybrid Democrats: Popular Perspectives on the Co-Existence of Democracy and Traditional Authority.” *The Journal of Modern African Studies; Cambridge* 47(1): 101–28.

Louis, William Roger. 1967. *Great Britain and Germany's Lost Colonies, 1914-1919*. Oxford: Clarendon P.

Ludwig, Jens, and Douglas L. Miller. 2007. "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design." *The Quarterly Journal of Economics* 122(1): 159–208.

MacLean, Lauren. 2010. *Informal Institutions and Citizenship in Rural Africa : Risk and Reciprocity in Ghana and Côte d'Ivoire*. New York: Cambridge University Press.

Mamdani, Mahmood. 1996. *Citizen and Subject : Contemporary Africa and the Legacy of Late Colonialism*. Princeton, N.J.: Princeton University Press.

Mattingly, Daniel. 2017. "Colonial Legacies and State Institutions in China: Evidence From a Natural Experiment." *Comparative Political Studies* 50(4): 434–63.

Mazrui, Ali. 1983. "Francophone Nations and English-Speaking States: Imperial Ethnicity and African Political Formations." In *State Versus Ethnic Claims: African Policy Dilemmas*, Boulder, CO: Westview Press.

McCauley, John, and Daniel Posner. 2015. "African Borders as Sources of Natural Experiments Promise and Pitfalls." *Political Science Research and Methods* 3(2): 409–18.

McNamee, Lachlan. 2019. "Indirect Colonial Rule and the Salience of Ethnicity." *World Development* 122: 142–56.

Miguel, Edward, and Mary Kay Gugerty. 2005. "Ethnic Diversity, Social Sanctions, and Public Goods in Kenya." *Journal of Public Economics* 89(11–12): 2325–68.

Miles, William. 1994. *Hausaland Divided : Colonialism and Independence in Nigeria and Niger*. Ithaca, N.Y.: Cornell University Press.

Muller-Crepon, Carl. 2018. "Continuity or Change? (In)Direct Rule in British and French Colonial Africa." . Working Paper. http://www.carlmueller-crepon.org/publication/indirect_rule/.

Njoh, Ambe. 1997. "Colonial Spatial Development Policies, Economic Instability, and Urban Public Transportation in Cameroon." *Cities* 14(3): 133–43.

Olson, Mancur. 1971. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, Mass.: Harvard University Press.

Ostrom, Elinor. 1990. *Governing the Commons : The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.

Page, Ben. 2003. "Communities as the Agents of Commodification: The Kumbo Water Authority in Northwest Cameroon." *Geoforum* 34(4): 483–98.

Posner, Daniel. 2004. “The Political Salience of Cultural Difference: Why Chewas and Tumbukas Are Allies in Zambia and Adversaries in Malawi.” *American Political Science Review* 98(4): 529–45.

Putnam, Robert. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton: Princeton University Press.

Renner, F. A. 1985. “Ethnic Affinity: Partition and Political Integration in Senegambia.” In *Partitioned Africans: Ethnic Relations across Africa’s International Boundaries 1884-1984*, New York, NY: St. Martin’s Press.

Robinson, Amanda. 2014. “National versus Ethnic Identification in Africa: Modernization, Colonial Legacy, and the Origins of Territorial Nationalism.” *World Politics* 66(4): 709–46.

Robinson, R. E. 1950. “Why Indirect Rule Has Been Replaced by Local Government in the Nomenclature of British Native Administration.” *Journal of African Administration* (3): 12–15.

Roessler, Philip et al. 2018. “The Empty Panorama: The Colonial Origins of Spatial Inequality in Africa.” . Working Paper.

Rubin, Neville. 1972. *Cameroun: An African Federation*. New York: Praeger.

Singh, Prerna. 2011. “We-Ness and Welfare: A Longitudinal Analysis of Social Development in Kerala, India.” *World Development* 39(2): 282–293.

Tajfel, Henri. 1981. *Human Groups and Social Categories: Studies in Social Psychology*. New York, N.Y.: Cambridge University Press.

Turner, John et al. 1987. *Rediscovering the Social Group: A Self-Categorization Theory.* New York, N.Y.: Basil Blackwell.

Whittlesey, Derwent. 1937. “British and French Colonial Technique in West Africa.” *Foreign Affairs* 15(2): 362–73.

Widner, Jennifer, and Alexander Mundt. 1998. “Researching Social Capital in Africa.” *Africa* 68(1): 1–24.

Wilfahrt, Martha. 2018. “Precolonial Legacies and the Contemporary Politics of Public Goods Provision in Decentralized West Africa.” *World Politics* 70(2): 239–74.

Williams, J. Michael. 2010. *Chieftaincy, the State, and Democracy : Political Legitimacy in Post-Apartheid South Africa*. Bloomington: Indiana University Press.

Woodberry, Robert. 2012. “The Missionary Roots of Liberal Democracy.” *The American Political Science Review; Washington* 106(2): 244–74.

Woolcock, Michael. 2010. “The Rise and Routinization of Social Capital, 1988–2008.” *Annual Review of Political Science* 13(1): 469–87.

Young, Crawford. 1994. *The African Colonial State in Comparative Perspective*. New Haven: Yale University Press.

Supplementary Materials:
The Mechanisms of Direct and Indirect Rule:
Colonialism and Economic Development in Africa

A1: *Geographic Balance at the Border*

Figure A1.1 visualizes potential geographic confounders on either side of Cameroon's internal border. This data includes the average altitude, annual precipitation and temperature and average soil suitability, as measured by soil CEC, of 5km grid squares on either side of Cameroon's internal border. Figure A1.2 shows a series of difference of means tests, with 95% confidence intervals, of these potential geographic confounders at different bandwidths from the Anglophone and Francophone sides of the border, thus that the 50km band includes estimates for all survey clusters that are within 50km of the border on either side. This figure also estimates whether levels of precolonial political centralization, as measured by Murdock (1981), varies at the border, another potential threat to the border's exogeneity.

We take the results of Figures A1.1 and A1.2 as further evidence that the Picot line was not drawn as a function of geographic characteristics or as a function of precolonial statehood. Still, both figures do highlight the presence of some notable geographic factors, such as Mount Cameroon or the highlands of the Bamenda Grasslands, on the Anglophone side of the border, leading us to opt to be conservative and include a set of geographic controls to capture any potential confounding effect of these environmental conditions on subsequent economic development.

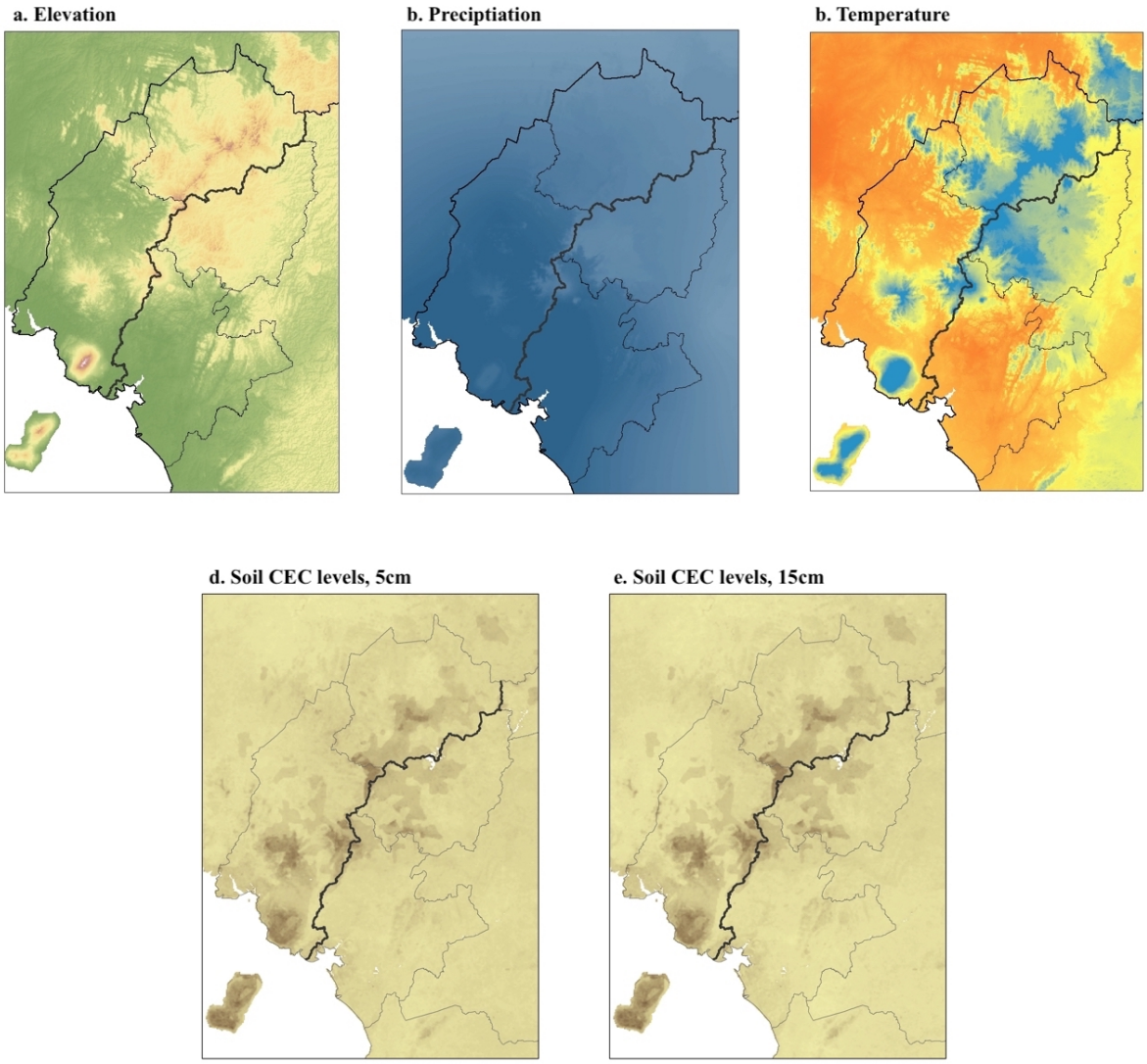


Figure A1.1 Geographic Balance Across Anglophone-Francophone Border

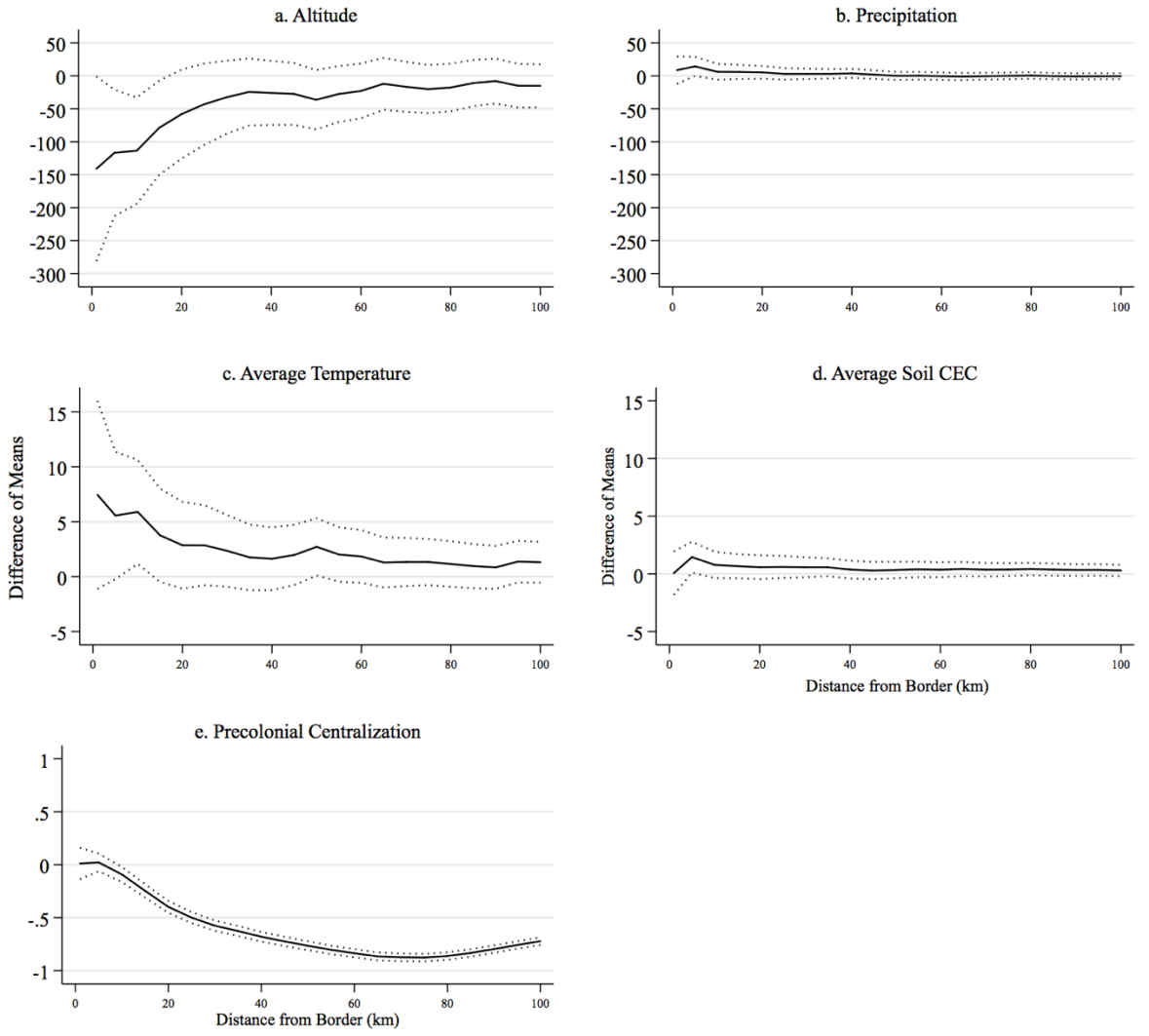


Figure A1.2: Pretreatment Balance - Difference of Mean Estimates Across Border

with 95% Confidence Intervals

A2: *Replication of Lee & Schultz (2012)*

We replicate and extend the findings of Lee & Schultz (2012) that there are long-run disparities in local economic development between Francophone and Anglophone Cameroon. Lee and Schultz (2012) find that households on the Anglophone side of the border are wealthier, measured through an asset index, and that they are more likely to have access to locally coproduced public goods such as piped water. We replicate these findings and build on them by distinguishing between development outcomes driven by local versus central government actions. Because the mechanisms of indirect rule act specifically at the local level, we expect the positive effects of indirect rule on economic outcomes to be driven by local processes, and not development strategies of the central state, such as the highly-centralized decision to connect communities to the national electricity grid.

To measure economic development, we draw on the 2004 and 2101 Demographic and Health Surveys (DHS).[1] The DHS surveys are collected through a nationally stratified sample such that households have equal probability of being sampled within each national census enumeration zone; 10,462 households were surveyed in 2004, and 14,214 households in 2011.[2] Each DHS survey records the coordinates of sampled villages, 'jittering' or displacing the coordinates by up to five kilometers in rural areas and up to two kilometers in urban areas to protect the confidentiality of respondents. Crucially, coordinates are only jittered within second-level administrative units, meaning that no sampling site could be reported as being on the wrong side of the border. This allows us to estimate the distance of each survey cluster to the Francophone-Anglophone border in addition to matching them to a range of control variables.

We regress two sets of dependent variables on the border to estimate the long-term effects of British colonial rule. First, we measure locally influenced development outcomes through the DHS surveys by examining locally coproduced *access to piped water*. Following Lee and Schultz, we estimate this as the percent of households within each survey cluster who report having access to piped water, either within their own compound, that of a neighbor or friend or in a publicly available standpipe. While numbers are approximate for urban respondents at about ninety-five percent reporting access to clean piped water, rural respondents' likelihood of having access to clean water varies across the country's internal boundary: 40.6% of rural Anglophone respondents have access to piped water compared to 22.2% in the two neighboring French regions. Second, we further examine the effect of the border on differences in *private household wealth* accumulation. Here again we follow Lee and Schultz by measuring household wealth as an additive index of whether a household possesses a car, motorcycle, bicycle, or radio as well as three measures of the quality of their home's physical infrastructure: their floor material (from earthen floors to tiles or carpet), whether the home has a flush toilet, a latrine or no toilet

[1] Note that Lee and Schultz only employ the 2004 data.

[2] Institut National de la Statistique (INS) 2005; 2012.

facilities and, finally, the logged number of rooms used for sleeping.[3] We calculate the cluster average and normalize the index around a mean of zero with a standard deviation of one.

We also draw on nightlight data from the Defense Meteorological Satellite Program's Operational Linescan System (DMSP-OLS) Nighttime Lights data series.[4] The electric grid is managed by the central government, allowing us to distinguish between the logics of local versus top-down service provision and to gain important leverage on the potential postcolonial compound treatment of central government linguistic favoritism towards Francophone regions. The DMSP-OLS data reports the yearly average, cleaned to eliminate distortion from interference, for example from lighting, cloud cover or gas flares.[5] Though nightlight data is sensitive to bottom-censoring, research suggests that nightlight data accurately captures distinctions between electrified and unelectrified villages in rural areas of the continent.[6] To process the nightlight data into a useable dependent variable, we construct five kilometers by five-kilometer grid cells in ArcGIS and extract the average score by each grid. Grid squares traversed by the border are split.

Our findings, presented in Figure A2, largely mirror those of Lee and Schultz. Measures of local development – namely household wealth and access to clean water are, on average, higher in regions that were colonized by the British. Conversely, and consistent with our expectations, there is not any evidence that electricity access, as measured by nightlight data and provided by the central government, differs across the border. Notably, the effect for household wealth is strongest close to the border; anglophone DHS clusters have, on average, an approximately twenty-nine percentage point increase in cluster-average asset index scores, but this number jumps to sixty-six percentage points when looking at clusters less than fifteen-kilometers from the border. Results are less robust for piped water access: the discontinuity does not appear to be significant close to the border. Still, on average anglophone households are over a half standard deviation more likely to have access to piped water.

[3] This deviates from Lee and Schultz's (2012) own measure in that we do not include possession that depends on proximity to an electric grid, notably a television, refrigerator or household electricity access itself.

[4] Earth Observation Group 1991; following Michalopoulos and Papaioannou 2013; Alesina, Michalopoulos, and Papaioannou 2016.

[5] The dataset captures human-generated light from 8:30-10:00 pm (local time), calculated at 30-arc second grids, roughly equivalent to about one kilometer.

[6] Henderson, Storeygard, and Weil 2012; Min et al. 2013.

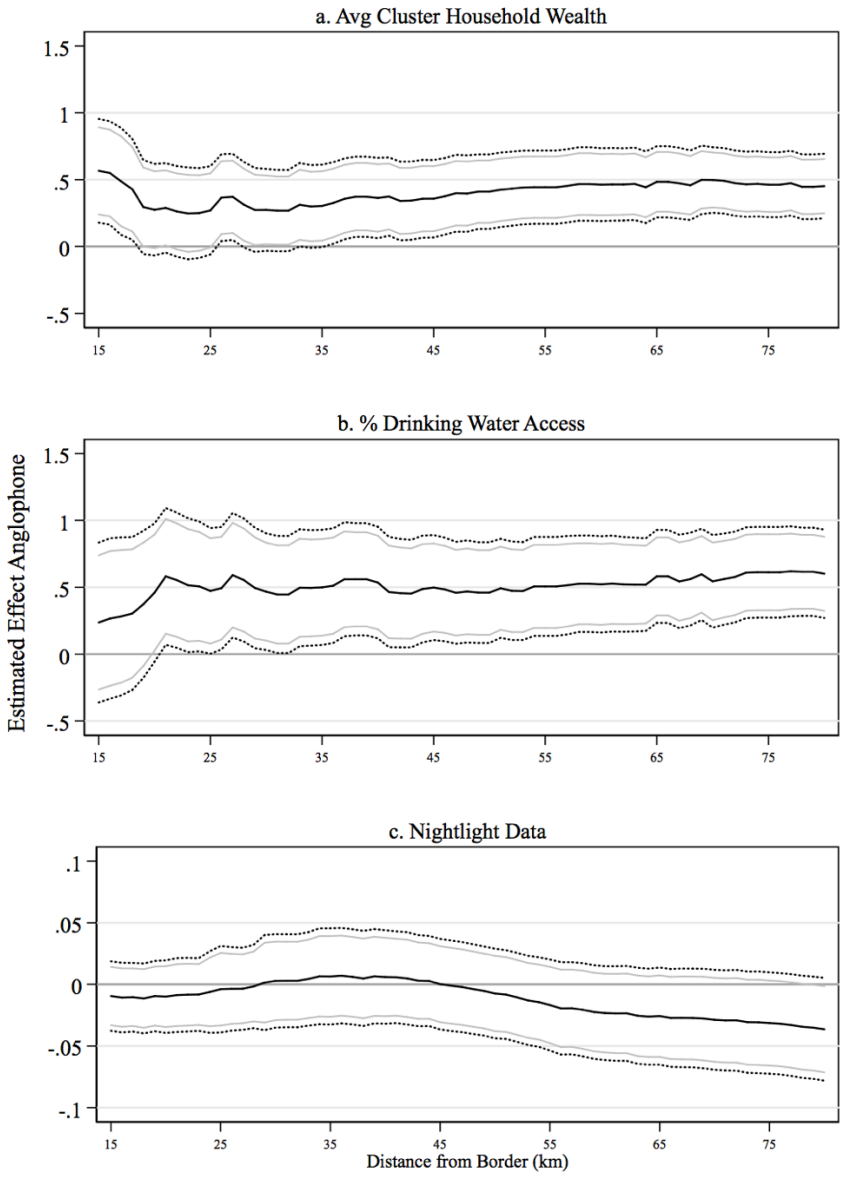


Figure A2: Average Treatment Effect of Indirect Rule on Wealth

MD Polynomial Estimation with 90% & 95% Confidence Intervals

Finally, Table A2 presents the results of these models using the linear modeling strategy of Lee and Schultz. Note that unlike Lee and Schultz (2012), however, we run all of our data with cluster averages to account for the threat of cluster randomization as recommended by McCauley and Posner (2015).

Table A2: Lee & Schultz Model Replication, Wealth Data

	a. Local Outcomes								b. Central State Outcomes			
	DV = Household Wealth				DV = Household Drinking Water				DV = Nightlight Intensity			
	Full	<30km	<20km	<10km	Full	<30km	<20km	<10km	Full	<30km	<20km	<10km
Legacy of indirect rule	0.502	0.293	0.085	1.007	0.625	0.198	0.140	0.069	-0.042	0.011	0.003	0.015
	(0.110)	(0.157)	(0.182)	(0.275)	(0.138)	(0.227)	(0.261)	(0.410)	(0.007)	(0.009)	(0.010)	(0.013)
Dist Border (Brit.)	0.002	0.030	0.048	-0.009	0.010	0.042	0.073	0.102	-0.006	-0.009	-0.006	-0.009
	(0.006)	(0.009)	(0.011)	(0.028)	(0.008)	(0.014)	(0.019)	(0.052)	(0.000)	(0.001)	(0.001)	(0.002)
Dist Border (Fr..)	-0.009	-0.016	-0.044	0.046	-0.021	-0.037	-0.041	-0.070	0.005	0.002	0.003	0.002
	(0.007)	(0.010)	(0.012)	(0.040)	(0.009)	(0.011)	(0.018)	(0.051)	(0.003)	(0.001)	(0.001)	(0.002)
Ln Dist to Capital	-3.056	-4.743	-7.119	-8.417	-4.032	-5.428	-7.931	-11.629	0.159	-0.040	-0.049	-0.105
	(1.238)	(1.401)	(1.390)	(2.372)	(1.678)	(1.969)	(2.213)	(3.494)	(0.053)	(0.074)	(0.080)	(0.095)
Ln Dist to Coast	0.076	0.059	0.112	0.298	0.056	0.054	0.050	0.284	-0.056	-0.030	-0.055	-0.053
	(0.053)	(0.057)	(0.063)	(0.148)	(0.048)	(0.051)	(0.055)	(0.184)	(0.005)	(0.008)	(0.006)	(0.007)
Ln Dist to Regional Capital	-0.150	-0.128	-0.214	-0.439	-0.058	-0.062	0.002	-0.198	-0.007	-0.018	-0.011	0.002
	(0.034)	(0.041)	(0.047)	(0.192)	(0.037)	(0.040)	(0.051)	(0.268)	(0.004)	(0.005)	(0.006)	(0.009)
Altitude	-0.000	0.000	0.000	-0.000	0.000	0.000	0.000	0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Pop Density (ln)	0.068	0.082	0.104	0.082	0.102	0.095	0.115	0.112	0.034	0.018	0.009	0.005
	(0.023)	(0.025)	(0.026)	(0.036)	(0.025)	(0.028)	(0.033)	(0.058)	(0.003)	(0.003)	(0.003)	(0.003)
R2	0.578	0.536	0.567	0.546	0.425	0.420	0.451	0.368	0.188	0.508	0.470	0.532
Observations	424	331	220	95	424	331	220	95	7383	3276	2379	1446

Robust standard errors in parentheses; standard errors in nightlight models are clustered by commune. Models additionally control for whether or not a survey cluster is urban, its soil suitability (captation rate). Survey round fixed effects also included.

A3: *Questions from the Afrobarometer*

The Tables below provide the complete wording for the Afrobarometer questions and the distribution of resources.

Table A3.1: Measures of the Local Legitimacy Mechanism (% Respondents)

Local Government Evaluations				
	Option 1	Option 2	Option 3	Option 4
How much of the time do you think the following try their best to listen to what people like you have to say: Local government councilors?	Never (49.9%)	Only Sometimes (26.7%)	Often (17.1%)	Always (6.2%)
Do you approve or disapprove of the way the following people have performed their jobs over the past twelve months: Your Elected Assembly man/woman?	Strongly Disapprove (16.6)	Disapprove (35.2)	Approve (39.4)	Strongly Approve (8.8)
During the past year, how often have you contacted any of the following persons about some important problem or to give them your views: An official of a government agency?	Never (87.5)	Only Once (4.4)	A Few Times (5.8)	Often (2.3)
Could you tell me whether you are an official leader, an active member, an inactive member, or not a member: Some other voluntary association or community group?	Not a Member (44.9)	Inactive Member (18.7)	Active Member (28.5)	Official Leader (7.9)

Table A3.2: Measures of the Traditional Authority Mechanism (% Respondents)

	Option 1	Option 2	Option 3	Option 4
How much do you trust traditional leaders?	Not at all (19.7%)	Just a Little (26.6%)	Somewhat (32.1%)	A Lot (21.6%)
How many traditional leaders are involved in corruption?	None (13.7)	Some of Them (57.1)	Most of Them (19.0)	All of Them (10.1)
During the past year, how often have you contacted a traditional leader?	Never (63.2)	Once (9.0)	A Few Times (15.0)	Often (12.8)
Do you approve or disapprove of the way the following people have performed their jobs over the past twelve months: Traditional Leader	Strongly Disapprove (8.98)	Disapprove (23.24)	Approve (53.22)	Strongly Approve (14.55)

Table A3.3: Measures of the Ethnicity Mechanism (% Respondents)

	Option 1	Option 2	Option 3	Option 4	Option 5
Suppose you had to choose between being a Cameroonian and being a member of your ethnic group	Only Ethnic Group (1.9%)	More Ethnic Group (6.3%)	Equal (43.0%)	More like a Cameroonian (10.7%)	Only Cameroonian (38.2%)
To what extent do ethnic networks provide access to top positions in public office?	Not at All (21.5)	Just a Little (15.3)	Somewhat (26.8)	A Lot (36.3)	--
Are elected leaders obliged to help their home community first or should they not do anything that favors their own group over others?	Home Community-Strongly Agree (10.8)	Home Community-Agree (7.0)	Help Everyone-Agree (35.4)	Help Everyone-Strongly Agree (46.9)	--

A4: *Sample Model Results*

Tables A4.1-A4.3 report the model results from Figures 3-5 in the main text. The models are run on all observations within 80km of the border. A base model excludes post-treatment controls, while a full model controls for proximity to the central state.

Table A4.1: Sample Model Replications- Local Government Legitimacy Mechanism

	Local Government Councilors Listen		Approve of Local Councilor Performance		Contacted a Government Agency		Member of a Community Group	
	Base	*Full*	*Base*	*Full*	*Base*	*Full*	*Base*	*Full*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.568 (0.161)	0.571 (0.156)	0.652 (0.132)	0.654 (0.130)	0.345 (0.087)	0.341 (0093)	0.426 (0.172)	0.399 (0.179)
Geographic Controls	Y	Y	Y	Y	Y	Y	Y	Y
Proximity to Central State	N	Y	N	Y	N	Y	N	Y
R2	0.134	0.137	0.137	0.142	0.111	0.112	0.155	0.155
Observations	872	872	819	819	934	934	930	930

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

Table A4.2: Sample Model Replications - Traditional Authority Mechanism

	Trust in Traditional Leaders		Traditional Leaders are Corrupt		Contacted Traditional Leader		Approve Trad. Leader Performance	
	Base	*Full*	*Base*	*Full*	*Base*	*Full*	*Base*	*Full*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.516 (0.235)	0.587 (0.237)	-0.073 (0.207)	-0.112 (0.209)	0.156 (0.211)	0.162 (0.216)	0.632 (0.237)	0.643 (0.217)
Geographic Controls	Y	Y	Y	Y	Y	Y	Y	Y
Proximity to Central State	N	Y	N	Y	N	Y	N	Y
R2	0.058	0.064	0.056	0.067	0.164	0.167	0.103	0.110
Observations	458	458	443	443	476	476	414	414

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

Table A4.3: Sample Model Replications - Ethnicity Mechanism

	Ethnic Identity Stronger than National Identity		Ethnic Network Provides Jobs		Leaders Should Help Their Own Community	
	Base	*Full*	*Base*	*Full*	*Base*	*Full*
	(1)	(2)	(3)	(4)	(5)	(6)
Legacy of indirect rule	1.004 (0.180)	1.008 (0.194)	-0.308 (0.197)	-0.316 (0.191)	0.191 (0.248)	0.287 (0.231)
Geographic Controls	Y	Y	Y	Y	Y	Y
Proximity to Central State	N	Y	N	Y	N	Y
R2	0.270	0.281	0.107	0.111	0.021	0.026
Observations	896	896	797	797	445	445

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

A5: Robustness: *Afrobarometer cluster results*

Table A5 presents results for Afrobarometer cluster averages, as recommended by McCauley and Posner (2015) to account for problems of cluster randomization. Results are consistent with those presented in the main text and in Tables A4.1-4.3.

Table A5: Afrobarometer Replication; Cluster Averages

Panel A: Local Gov. Legitimacy Mechanism				
	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.526 (0.178)	0.686 (0.137)	0.294 (0.087)	0.388 (0.183)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	118	118	118	118
R2	0.511	0.562	0.252	0.459
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.515 (0.252)	-0.041 (0.229)	0.133 (0.236)	0.612 (0.233)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	60	60	60	60
R2	0.253	0.310	0.332	0.461
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Own Community	
	(9)	(10)	(11)	
Legacy of indirect rule	0.987 (0.185)	-0.320 (0.227)	0.267 (0.278)	
Geographic Controls	Y	Y	Y	
Proximity to Central State	Y	Y	Y	
Observations	118	118	58	
R2	0.700	0.474	0.197	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for whether a cluster is urban or rural and the average logged population density within 5km. Geographic controls and those measuring proximity to the central state are cluster averages. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

A6: Robustness: *Whole Country Sample*

Table A6 replicates our models using the whole country sample (all ten of Cameroon's regions). Again, results are generally consistent for our proposed mechanism, although here trust in traditional leaders, an indicator of the traditional authority mechanism loses significance while reported contacting of traditional leaders gains it.

Table A6: Model Replications; Whole Country Sample

Panel A: Local Gov. Legitimacy Mechanism				
	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.363 (0.073)	0.389 (0.079)	0.175 (0.044)	0.579 (0.077)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	2088	1923	2239	2234
R2	0.107	0.093	0.053	0.083
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.241 (0.173)	-0.022 (0.129)	0.260 (0.130)	0.303 (0.123)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	1129	1066	1152	1010
R2	0.046	0.063	0.089	0.057
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Their Own Community	
	(9)	(10)	(11)	
Legacy of indirect rule	0.730 (0.086)	-0.469 (0.087)	0.007 (0.105)	
Geographic Controls	Y	Y	Y	
Proximity to Central State	Y	Y	Y	
Observations	2164	1832	1038	
R2	0.127	0.118	0.046	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

A7: Robustness: *No Douala*

Douala, Cameroon's economic hub, is located in Francophone Cameroon in close proximity to the country's internal border. To account for the possibility that our results are driven by respondents in Douala, Table A7 replicates the full models presented in Tables A4.1-4.3 excluding respondents in the Douala urban area. Results are consistent with the exception of our last indicator for political action, belonging to a community group, which falls to the ten percent significance level.

Table A7: Model Replications; No Douala

Panel A: Local Gov. Legitimacy Mechanism				
	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.528 (0.169)	0.589 (0.142)	0.316 (0.100)	0.349 (0.155)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	646	633	688	685
R2	0.102	0.094	0.136	0.155
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.632 (0.248)	-0.234 (0.205)	0.215 (0.240)	0.643 (0.217)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	342	333	348	414
R2	0.084	0.096	0.195	0.110
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Their Own Community	
	(9)	(10)	(11)	
Legacy of indirect rule	0.957 (0.200)	-0.330 (0.206)	0.301 (0.233)	
Geographic Controls	Y	Y	Y	
Proximity to Central State	Y	Y	Y	
Observations	668	613	331	
R2	0.245	0.101	0.031	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

A8: Robustness: *Alternative Distance Measures*

Tables A8.1-8.3 reproduces the full models in Tables A4.1-4.3 using alternative polynomial estimates. First, we re-run all models with a local linear estimate of distance from the border (exposure to treatment, distance to the border and their interaction). Following Dell (2010), we secondly run the models with a cubic polynomial of distance, estimated as exposure to treatment, distance to the border, distance to the border^2 and distance to the border^3. Finally, and also following Dell (2010), we estimate the models with a more demanding cubic polynomial using latitude and longitude. This is then exposure to treatment, a cluster's latitude, latitude^2, latitude^3, longitude, longitude^2, longitude^3, latitude*longitude, latitude^2*longitude, latitude*longitude^2 and the latitude and longitude of the nearest point on the border.

The results are broadly consistent. As in earlier robustness checks, Table A8.2 indicates that higher trust in traditional leaders in Anglophone regions loses significance across the board, suggesting that it is sensitive to specification.

Table A8.1: Model Replications; Alternative Polynomial Estimates

	Local Government Legitimacy Mechanism											
	Local Government Councilors Listen			Approve of Local Councilor Performance			Contacted a Government Agency			Member of a Community Group		
	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Legacy of Indirect Rule	0.272 (0.163)	0.300 (0.173)	0.527 (0.164)	0.558 (0.12)	0.555 (0.133)	0.654 (0.131)	0.257 (0.089)	0.235 (0.089)	0.351 (0.098)	0.445 (0.137)	0.420 (0.150)	0.426 (0.171)
Geographic Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R2	0.125	0.120	0.144	0.129	0.129	0.143	0.105	0.109	0.113	0.148	0.148	0.159
Observations	872	872	872	819	819	819	934	934	934	930	930	930

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Estimations as follows: (a) Local Linear models calculated with exposure to treatment, distance to the border, and their interaction; (b) Cubic Polynomial of Distance to Border calculated as exposure to treatment, distance to the border, distance to the border squared and cubed; (c) Cubic Polynomial of Latitude/Longitude calculated as exposure to treatment, latitude, latitude squared, latitude cubed, longitude, longitude squared and longitude cubed of cluster, latitude interacted with longitude, latitude squared interacted with longitude, and latitude interacted with longitude squared as well as the latitude and longitude of the nearest point on the border.

Table A8.2: Model Replications; Alternative Polynomial Estimates

	Traditional Authority Mechanism											
	Trust in Traditional Leaders			Traditional Leaders are Corrupt			Contacted Traditional Leader			Approve Trad. Leader Performance		
	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Legacy of Indirect Rule	0.360 (0.235)	0.255 (0.222)	0.352 (0.266)	-0.086 (0.175)	-0.080 (0.160)	-0.067 (0.233)	0.306 (0.183)	0.247 (0.175)	0.143 (0.256)	0.516 (0.192)	0.533 (0.179)	0.576 (0.207)
Geographic Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R2	0.053	0.049	0.096	0.057	0.059	0.087	0.166	0.163	0.170	0.096	0.102	0.143
Observations	458	458	458	443	443	443	476	476	476	414	414	414

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Estimations as follows: (a) Local Linear models calculated with exposure to treatment, distance to the border, and their interaction; (b) Cubic Polynomial of Distance to Border calculated as exposure to treatment, distance to the border, distance to the border squared and cubed; (c) Cubic Polynomial of Latitude/Longitude calculated as exposure to treatment, latitude, latitude squared, latitude cubed, longitude, longitude squared and longitude cubed of cluster, latitude interacted with longitude, latitude squared interacted with longitude, and latitude interacted with longitude squared as well as the latitude and longitude of the nearest point on the border.

Table A8.3: Model Replications; Alternative Polynomial Estimates

	Ethnicity Mechanism								
	Ethnic Id Stronger than National ID			Ethnic Network Provides Jobs			Leaders Should Help Their Own Community		
	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long	Local Linear	Cubic Polynomial of Distance	Cubic Polynomial of Lat/Long
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Legacy of indirect rule	0.933	0.917	0.952	-0.342	-0.274	-0.311	0.059	0.124	0.140
	(0.161)	(0.172)	(0.158)	(0.180)	(0.153)	(0.212)	(0.173)	(0.171)	(0.254)
Geographic Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y
Prox. to Central State	Y	Y	Y	Y	Y	Y	Y	Y	Y
R2	0.266	0.266	0.287	0.110	0.116	0.122	0.024	0.022	0.036
Observations	896	896	896	797	797	797	445	445	445

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Estimations as follows: (a) Local Linear models calculated with exposure to treatment, distance to the border, and their interaction; (b) Cubic Polynomial of Distance to Border calculated as exposure to treatment, distance to the border, distance to the border squared and cubed; (c) Cubic Polynomial of Latitude/Longitude calculated as exposure to treatment, latitude, latitude squared, latitude cubed, longitude, longitude squared and longitude cubed of cluster, latitude interacted with longitude, latitude squared interacted with longitude, and latitude interacted with longitude squared as well as the latitude and longitude of the nearest point on the border.

A9: Robustness: *Secondary Measures of the Argument*

Further evidence for our argument can be found in performance assessments of the local government; here we use a series of questions asking respondents how well the local government: 1) maintains local roads, 2) maintains local markets, 3) maintains health standards, 4) keeps the community clean, and 5) manages the use of land. As seen in Figure A9, for all five questions, and across nearly every bandwidth specification, Anglophones are more likely to approve of the job of their local government. On a four-point scale "very badly" to "very well," the effect of being on the anglophone side of border colonized ranges from 0.76 to 0.97 points higher. For each question, the average Francophone respondent replied that the local government was doing "fairly badly" at managing the problem, while the average Anglophone responded that the local government was doing "fairly well." Taken together, this provides more evidence that indirect rule produced stronger ties between citizens and the institutions of local government.

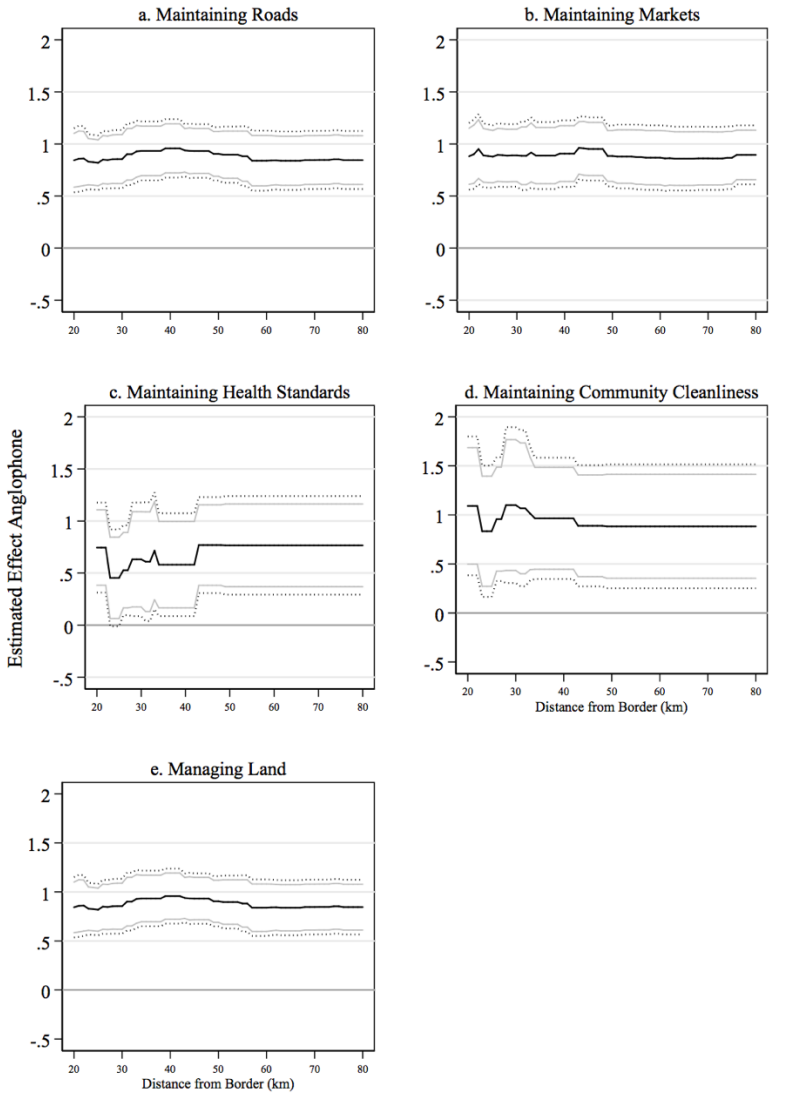


Figure A9: Alternative Measures of the First Mechanism: Evaluations of Local Government Performance

A10. Robustness: *Spillover Effects*

It is possible that migration from French Cameroun to British Southern Cameroons or vice versa could bias our results because of sorting at the border, the idea that 'treated' individuals from the Anglophone side may migrate to the 'non-treated' side post-independence (McCauley and Posner 2015, 414-5). Sorting is a problem for two reasons. First, if citizens from the 'control' group (e.g. those ruled under French direct rule) migrate to areas exposed to the treatment (e.g. Anglophone regions 'treated' with indirect rule), the treatment effect will be weakened. We are less concerned about this because most of the migration from the Francophone side of the border occurred during the German colonial period, before the 'treatment' of British indirect rule. A second threat is self-selected sorting, which raises the risk of confounding the treatment effect with unobserved factors, such as 'industriousness' or community-level effects which might both encourage or discourage migration while also easing or hampering collective action.

We address the known migration from across Cameroon to work on plantations in the foothills of Mount Cameroon during the colonial era in two ways. First, we rerun our models with an interaction term between a survey clusters distance to Mount Cameroon and their exposure to treatment. We secondly drop all respondents in Fako Department, home to most of the colonial-era plantations. Even when excluding respondents who live in plantation zones – hence those who are most likely to be in-migrants, our results are consistent. These results can be found in Panel A of Tables A10.1 and A10.2. For ease of interpretation, the results are displayed graphically in Figures A10.1-A10.3.

If, on average, respondents living in the Mount Cameroon area were less exposed to indirect rule because of sorting, then we should expect to see stronger effects of living in anglophone regions *farther* from Mount Cameroon, where a more consistent treatment would theoretically have been had. We find no evidence of significant interaction effects. The figures do not provide robust support for the argument that distance from the planation economies around Mount Cameroon mediates the effect of exposure to indirect rule. In general, we find nearly parallel lines in the marginal effects of falling on the anglophone side of the border at different distances from Mount Cameroon in most cases. The exception is Figure 10.2, but the differences do not suggest spillover effects. We take this as evidence that our results are not driven by potential confounding effects of sorting along the border due to migration by planation laborers.

Unfortunately, the Afrobarometer asks respondents their region of origin, but results are also robust to excluding respondents in the Afrobarometer samples who report that they speak English at home if they live in Francophone regions and, in turn, respondents who speak French at home in Anglophone regions as these are likely migrants. Not surprisingly given the small number who meet this criteria, 12 and 4 respectively, this does not change our results.

Table A10.1: Model Replication to Account for Spillover Effects, Distance to Mt. Cameroon

Panel A: Local Gov. Legitimacy Mechanism				
	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.843 (0.301)	0.433 (0.321)	0.307 (0.149)	0.425 (0.295)
Dist Mt. Cameroon (km)	0.003 (0.005)	-0.003 (0.007)	-0.001 (0.002)	-0.009 (0.004)
Anglophone* Dist Mt. Cameroon (km)	-0.002 (0.002)	0.001 (0.002)	0.000 (0.001)	-0.000 (0.002)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	872	819	934	930
R2	0.137	0.142	0.111	0.159
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	-0.989 (0.554)	1.376 (0.491)	1.012 (0.497)	0.110 (0.460)
Dist Mt. Cameroon (km)	0.015 (0.011)	-0.001 (0.008)	-0.014 (0.007)	0.008 (0.011)
Anglophone* Dist Mt. Cameroon (km)	0.011 (0.003)	-0.009 (0.003)	-0.006 (0.003)	0.004 (0.003)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	458	443	476	414
R2	0.084	0.091	0.175	0.115
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Their Own Community	
	(9)	(10)	(11)	
Legacy of indirect rule	1.585 (0.407)	0.822 (0.299)	0.451 (0.445)	
Dist Mt. Cameroon (km)	0.012 (0.004)	0.021 (0.004)	-0.006 (0.005)	
Anglophone* Dist Mt. Cameroon (km)	-0.003 (0.002)	-0.007 (0.002)	-0.002 (0.003)	
Geographic Controls	Y	Y	Y	
Proximity to Central State	Y	Y	Y	
Observations	896	797	445	
R2	0.286	0.125	0.028	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

Table A10.2: Model Replication to Account for Spillover Effects, No Fako Department

Panel A: Local Gov. Legitimacy Mechanism				
	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.646 (0.172)	0.749 (0.127)	0.380 (0.105)	0.307 (0.221)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	794	743	855	851
R2	0.150	0.156	0.115	0.157
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	-0.041 (0.046)	-0.147 (0.184)	0.198 (0.236)	0.609 (0.228)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	418	404	436	375
R2	0.044	0.082	0.184	0.117
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Their Own Community	
	(9)	(10)	(11)	
Legacy of indirect rule	1.135 (0.202)	-0.232 (0.222)	0.439 (0.226)	
Geographic Controls	Y	Y	Y	
Proximity to Central State	Y	Y	Y	
Observations	818	721	407	
R2	0.287	0.124	0.038	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

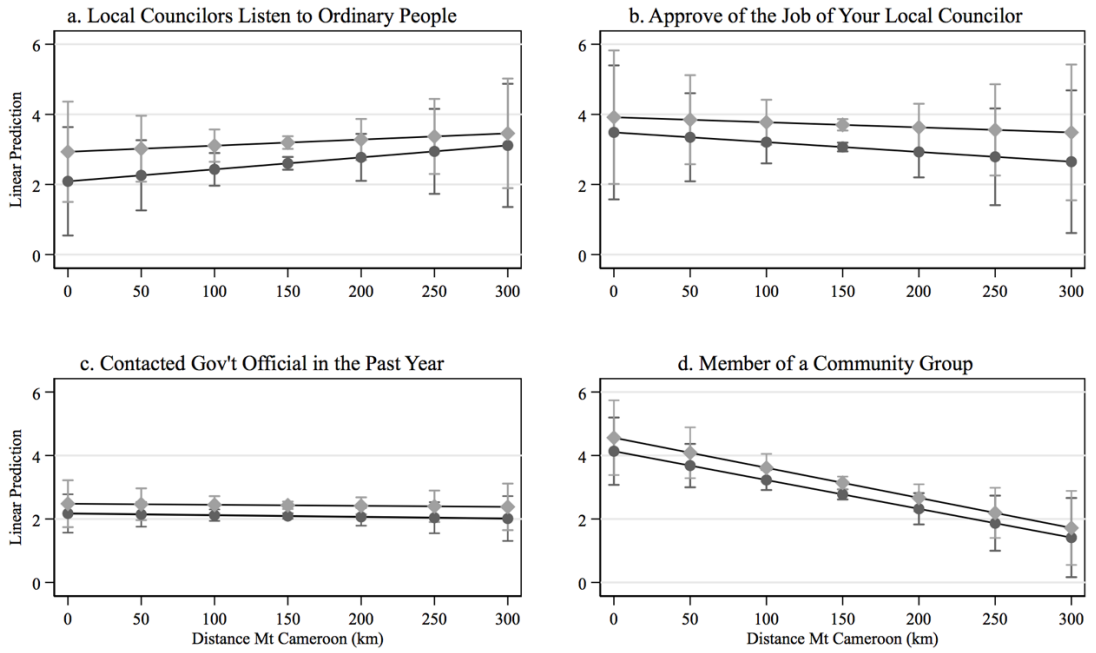
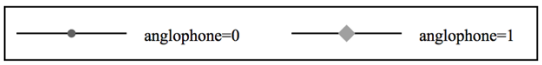


Figure A10.1: Interaction of Treatment & Dist. to Mt. Cameroon: Local Legitimacy Mechanism



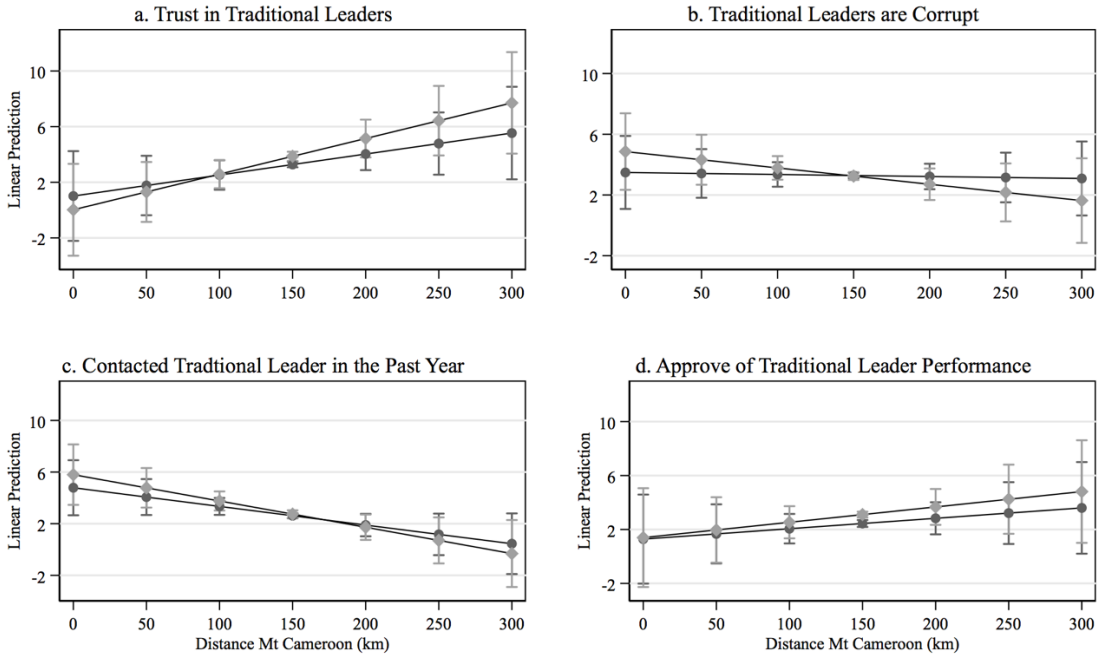
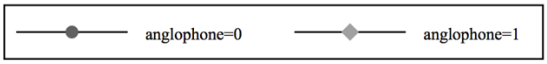


Figure A10.2: Interaction of Treatment & Dist. to Mt. Cameroon: Traditional Authority Mechanism



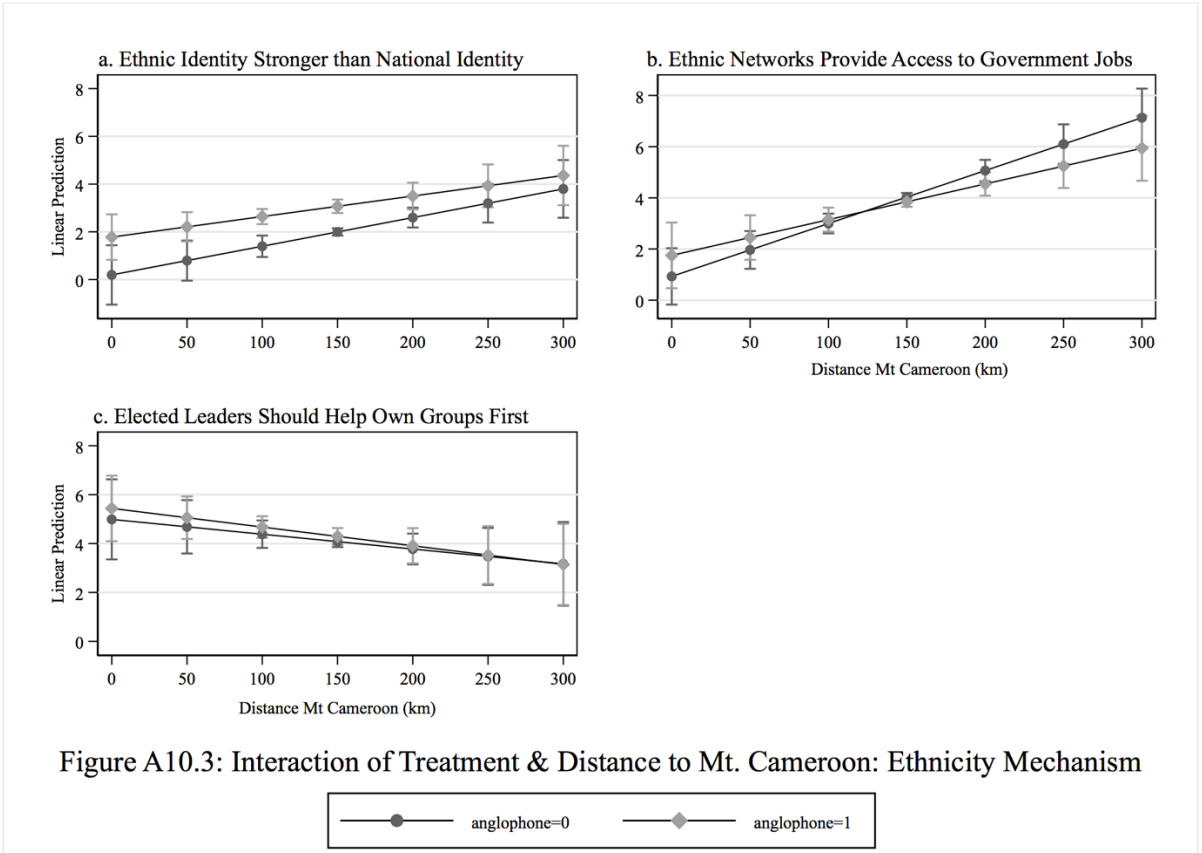


Figure A10.3: Interaction of Treatment & Distance to Mt. Cameroon: Ethnicity Mechanism

A11. Robustness: *Placebo Borders*

As a final robustness check, we rerun our models with placebo borders at twenty-kilometer intervals up to sixty kilometers to the east and west of the actual border, following Lee and Schultz (2012) and Mattingly (2017). This allows us to address the risk that some other southwest-northwest feature drives our results rather than the actual border. If placebo borders consistently return significant results, then perhaps any line roughly parallel to the border would generate support for our argument rather than it being related to Cameroon's dual colonial heritage.

Given the complicated form of our multidimensional polynomial models, we calculate the placebos using Lee and Schultz's specification reported in Appendix A2. The results can be found in the three figures below. As Figures A11.1-11.3 document, were the border to be displaced to the east or west, results would largely be consistent with those reported above. Notably, results for our argument suggest that a positive effect of exposure to indirect rule on our measures of the local legitimacy mechanisms are by and large only statistically significant difference at the actual border.

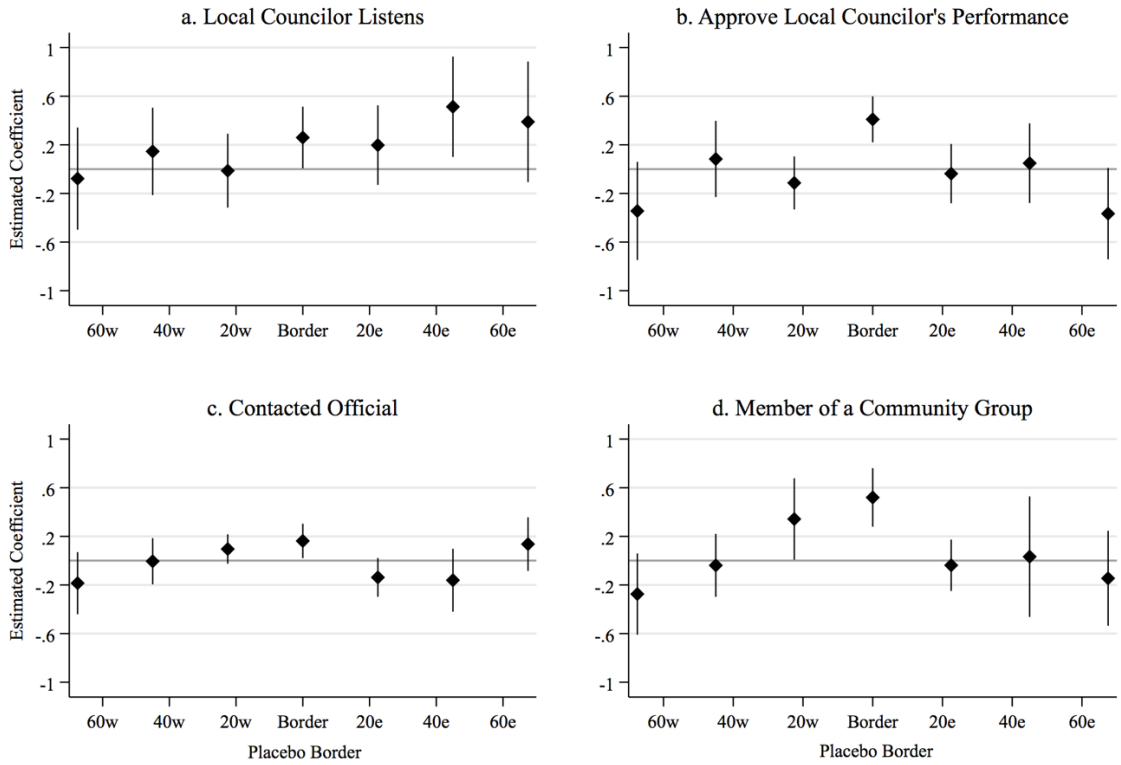


Figure A11.1: ATE at Placebo for Local Legitimacy Mechanism

Standardized dependent variables with 95% Confidence Intervals

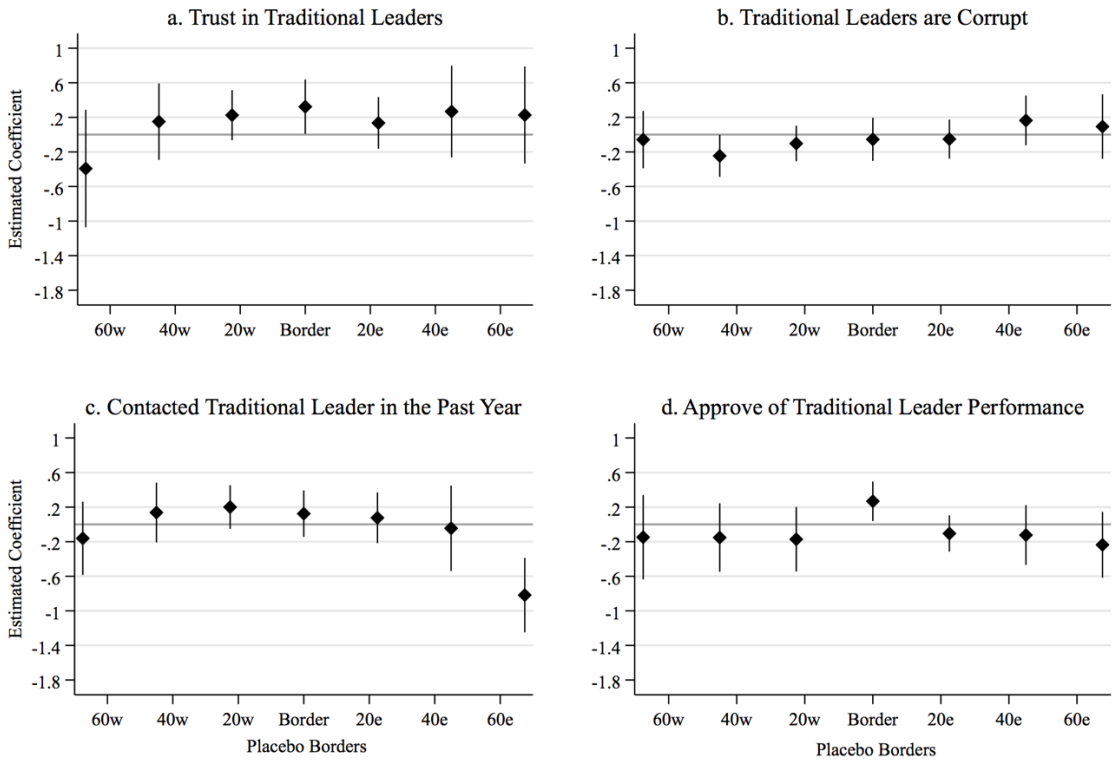
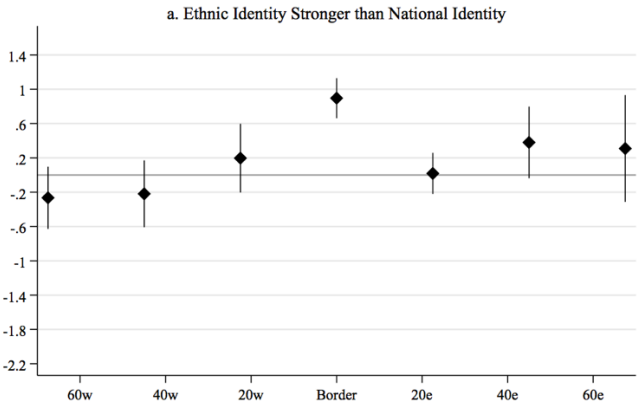
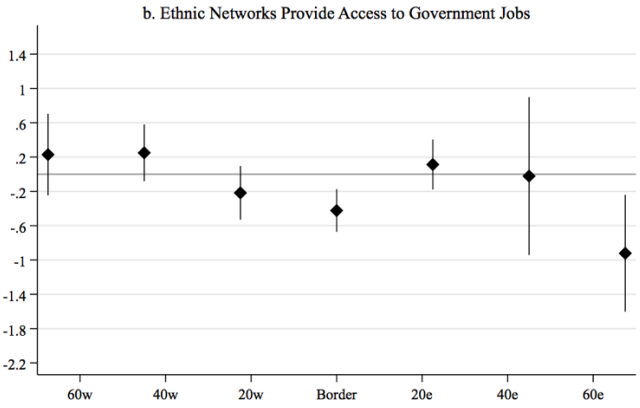


Figure A11.2: ATE at Placebo for Traditional Authority Mechanism

Standardized dependent variables with 95% Confidence Intervals





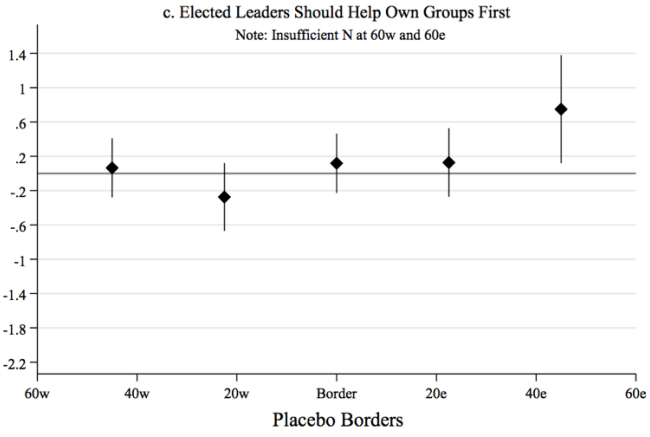


Figure A11.3: ATE at Placebo for Ethnicity Mechanism
Standardized dependent variables with 95% Confidence Intervals

A12: Robustness: Generalizability of Social Capital Findings

Table A12 examines whether the null effect of social capital reported in Figure 6 of the main text extends to the broader sub-Saharan African sample. Note that the findings mirror those of Cameroon with the exception that across the continent Anglophones are less trusting in both their social relations and their institutions.

Table A12: Generalizability of the Social Capital Finding

	Social Trust	Institutional Trust	Discuss Politics	Voted	Attend Protest
	(1)	(2)	(3)	(4)	(5)
Legacy of indirect rule	-0.481 (0.089)	-0.188 (0.049)	-0.015 (0.031)	-0.255 (0.110)	0.036 (0.055)
Geographic Controls	Y	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y	Y
Observations	37280	58661	77073	77570	76421
Country N	24	25	26	26	26

Results of mixed level models estimating the effect of exposure to indirect rule (residing in a former British colony). Model 4 run with mixed-level logit. Robust standard errors in parentheses. Models include all respondents in former British and French colonies sampled in Rounds 5 and 6 of the Afrobarometer. Survey round fixed effects included when appropriate. All models include controls for the respondent's age, gender, education, whether they live in an urban or rural sampling unit. Note that Proximity to the Central State is measured here with the logged distance to the national capital from the centroid of their second-level administrative unit. Models also include a dummy variable for whether or not the respondent comes from a former settler colony.

A13: Alternative Explanations: *Precolonial Centralization*

In light of recent findings that areas that were politically centralized in the precolonial era are correlated with better on-average development outcomes (Bandyopadhyay and Green 2016; Michalopoulos and Papaioannou 2013), we control for the *degree of precolonial political hierarchy* as measured by Murdock (1981). Yet as seen in Table A13, we find no evidence that contemporary political attitudes and reported behavior are correlated with precolonial attributes. Importantly, this does not change our findings for the legacy of exposure to indirect rule, reinforcing our finding in A1 that precolonial statehood neither influenced the drawing of the Picot Line nor seems to be carrying substantial weight in determining contemporary outcomes.

Table A13: Model Replication with Murdock's Precolonial Centralization Measure

	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
Panel A: Local Gov. Legitimacy Mechanism	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.577 (0.161)	0.649 (0.127)	0.357 (0.092)	0.409 (0.181)
Murdock's Jurisdictional Hierarchy	0.008 (0.048)	0.032 (0.041)	0.034 (0.028)	-0.039 (0.045)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	843	789	903	899
R2	0.123	0.144	0.113	0.152
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
Panel B: Traditional Authority Mechanism	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.633 (0.248)	-0.075 (0.202)	0.167 (0.208)	0.708 (0.219)
Murdock's Jurisdictional Hierarchy	-0.029 (0.098)	0.061 (0.057)	-0.112 (0.078)	0.101 (0.062)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	435	421	453	391
R2	0.053	0.077	0.159	0.109
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Their Own Community	
Panel C: Ethnicity Mechanism	(9)	(10)	(11)	
Legacy of indirect rule	1.025 (0.199)	-0.302 (0.191)	0.335 (0.250)	
Murdock's Jurisdictional Hierarchy	-0.011 (0.047)	0.037 (0.060)	0.037 (0.072)	
Geographic Controls	Y	Y	Y	
Proximity to Central State	Y	Y	Y	
Observations	867	766	438	
R2	0.279	0.114	0.026	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

A14: Alternative Explanations: *Distance to Nigeria*

One potential alternative explanation is that Anglophone regions might fare better economically because of their proximity to Nigeria and Nigerian markets, rather than exposure to indirect rule. Controlling for each cluster's logged distance to the Nigerian border does not alter our results as shown in Table A14.

Table A14: Model Replication with Logged Distance to Nigerian Border

Panel A: Local Gov. Legitimacy Mechanism				
	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.562 (0.157)	0.652 (0.132)	0.347 (0.093)	0.401 (0.179)
Ln D Nigeria	0.116 (0.119)	0.032 (0.139)	-0.093 (0.085)	-0.036 (0.124)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	872	819	934	930
R2	0.137	0.142	0.112	0.155
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.585 (0.231)	-0.110 (0.205)	0.162 (0.216)	0.638 (0.214)
Ln D Nigeria	-0.401 (0.378)	0.217 (0.248)	0.083 (0.300)	-0.235 (0.172)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	458	443	476	414
R2	0.068	0.069	0.168	0.112
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Their Own Community	
	(9)	(10)	(11)	
Legacy of indirect rule	0.984 (0.192)	-0.307 (0.193)	0.299 (0.239)	
Ln D Nigeria	0.304 (0.115)	-0.089 (0.177)	-0.051 (0.189)	
Geographic Controls	Y	Y	Y	
Proximity to Central State	Y	Y	Y	
Observations	896	797	445	
R2	0.284	0.112	0.026	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

A15: Alternative Explanations*: Bamileké/Bassa Exclusion*

Beginning in the 1950s and continuing in the 1970s, Bassa and Bamiléké populations engaged in the largest episode of government opposition during the UPC rebellion (see Joseph 1977). Bassa and Bamiléké populations were concentrated in the corridor between Douala and Bafoussam, located directly on the Francophone side of Cameroon's internal border. It is possible, therefore, that what we are capturing is not an attribute of Anglophone regions, but a legacy of the rebellions and subsequent government repression on the *Francophone* side of the border. Yet controlling for whether or not an Afrobarometer respondent is ethnically Bassa or Bamiléké as a proxy to exposure to state repression does not affect our main findings as reported in Table A15.

Table A15: Replication of Afrobarometer models with Bamileké/Bassa Dummy

Panel A: Local Gov. Legitimacy Mechanism				
	Local Gov. Councilors Listen	Approve of Local Councilor Performance	Contacted a Government Agency	Member of Community Group
	(1)	(2)	(3)	(4)
Legacy of indirect rule	0.567 (0.154)	0.693 (0.127)	0.346 (0.093)	0.417 (0.192)
Bamileké/Bassa	-0.006 (0.093)	0.072 (0.078)	0.010 (0.050)	0.035 (0.091)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	872	819	934	930
R2	0.137	0.142	0.112	0.156
Panel B: Traditional Authority Mechanism				
	Trust in Traditional Leaders	Traditional Leaders are Corrupt	Contacted Traditional Leader	Approve Trad. Leader Performance
	(5)	(6)	(7)	(8)
Legacy of indirect rule	0.497 (0.269)	-0.056 (0.225)	0.084 (0.232)	0.547 (0.219)
Bamileké/Bassa	-0.139 (0.155)	0.088 (0.119)	-0.120 (0.110)	-0.139 (0.111)
Geographic Controls	Y	Y	Y	Y
Proximity to Central State	Y	Y	Y	Y
Observations	458	443	476	414
R2	0.066	0.068	0.169	0.113
Panel C: Ethnicity Mechanism				
	Ethnic ID Stronger than National ID	Ethnic Network Provides Jobs	Leaders Should Help Their Own Community	
	(9)	(10)	(11)	
Legacy of indirect rule	1.115 (0.198)	-0.193 (0.188)	0.362 (0.236)	
Bamileké/Bassa	0.190 (0.087)	0.228 (0.114)	0.141 (0.088)	
Geographic Controls	Y	Y	Y	
Proximity to Central State	Y	Y	Y	
Observations	896	797	445	
R2	0.285	0.116	0.029	

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

A16: Alternative Explanations: *Central State Favoritism*

A second compound treatment concern relates to variations in investments in the post-Independence period. Of particular concern is the risk that the current regime of President Paul Biya favors Francophone regions. One way to address this question is to look at changes in the distribution of wealth measures across the border over time. Though Paul Biya becomes president in 1982, he only began to seriously reorganize government following a 1984 coup attempt, and by all reports, his reshuffling favored the south over the *north*. The Anglophone west largely remained out of Biya's political calculus until the democratization period, beginning in 1990, meaning that discrimination specifically targeted at Anglophone regions is unlikely to have begun until after the political opening of the early 1990s, when these regions came out in open opposition to the regime. As shown in Figures A16, however, there is no evidence that the relative provisioning of electricity – a high demand public good provided by the central state - to Francophone areas has shifted during the last twenty-five years of Biya's rule as allegations would predict. Crucially, if the central government really does favor the Francophone regions, this should bias the effect of the treatment against our predicted outcome because economic development would be better in the Francophone regions. While the slight bias towards Anglophone bias in 1991 does disappear by 2004, the pattern is largely consistent over time.

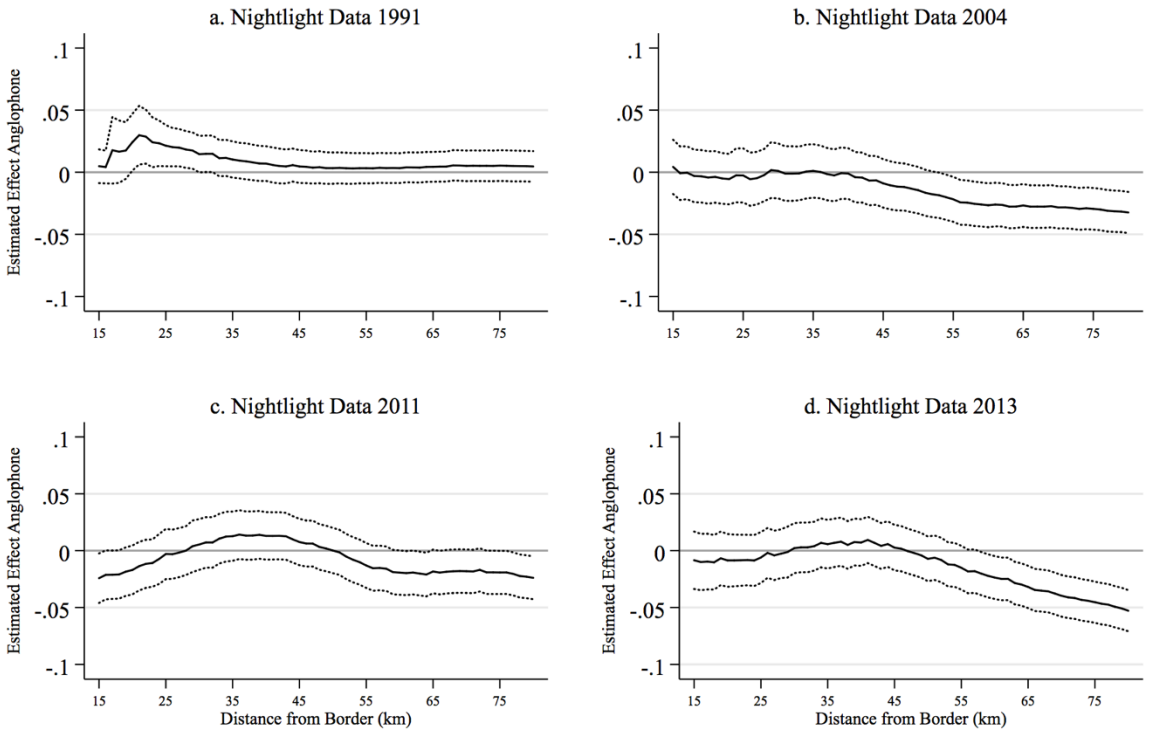


Figure A16: Average Treatment Effect of Indirect Rule on Electricity over time

Standardized dependent variables with 95% Confidence Intervals

A second means to evaluate this claim is to look at behavioral data. The Afrobarometer data asked three questions about perceptions of regional favoritism in Round 6 of the Cameroonian survey. Specifically, respondents were asked if they were satisfied with how proportional representation across the country's ten regions was implemented in three sectors: entry into prestigious public service schools, such as the *Ecole nationale d'administration et de magistrature (ENAM)*, appointments to public offices and placements in the military and police. In direct contrast to the expectations emanating from the current Anglophone crisis, Anglophone Cameroonians report being no more or les satisfied (as seen in model 1) or *more* satisfied (model 3 and model 2 at a ten percent significance level) than their Francophone counterparts.

Table A16: Perceptions of Central State Favoritism

	Are you satisfied with how proportional representation is implemented in the following sectors?		
	Placement in Public Service Schools (ENAM, ENS)	Appointments in Public Office	Placement in Military/Police
Legacy of indirect rule	0.303 (0.201)	0.399 (0.221)	0.792 (0.222)
Geographic Controls	Y	Y	Y
Proximity to Central State	Y	Y	Y
Observations	750	758	753
R2	0.143	0.109	0.200

Results of OLS regressions for all respondents within 80km of the border. Robust standard errors clustered by survey enumeration area in parentheses. Survey round fixed effects included when appropriate. Models control for the respondent's age, gender, education, whether they live in an urban or rural sampling unit and logged population density within 5km. Distance to the border measured via a multi-dimensional polynomial, measured by a cluster's latitude, longitude, their interaction, latitude squared, longitude squared and the latitude and longitude of the nearest point on the border longitude and dummies for survey round.

References

Alesina, Alberto, Stelios Michalopoulos, and Elias Papaioannou. 2016. “Ethnic Inequality.” *Journal of Political Economy* 124 (2): 428–88.

Bandyopadhyay, Sanghamitra, and Elliott Green. 2016. “Precolonial Political Centralization and Contemporary Development in Uganda.” *Economic Development and Cultural Change* 64 (3): 471–508.

Dell, Melissa. 2010. “The Persistent Effects of Peru’s Mining Mita.” *Econometrica* 78 (6): 1863–1903.

Earth Observation Group. 1991. “DMSP-OLS Nighttime Lights Time Series (Version 4).” National Oceanic and Atmospheric Administration. https://ngdc.noaa.gov/eog/dmsp/downloadV4composites.html.

Henderson, J. Vernon, Adam Storeygard, and David N. Weil. 2012. “Measuring Economic Growth from Outer Space.” *American Economic Review* 102 (2): 994–1028.

Institut National de la Statistique (INS). 2005. “Cameroun: Enquête Démographique et de Santé et à Indicateurs Multiples (DHS-III).” Yaounde, Cameroon. http://dhsprogram.com/pubs/pdf/FR163/FR163-CM04.pdf.

———. 2012. “Cameroun: Enquête Démographique et de Santé et à Indicateurs Multiples (DHS-IV).” Yaounde, Cameroon. http://dhsprogram.com/pubs/pdf/FR260/FR260.pdf.

Joseph, Richard A. 1977. *Radical Nationalism in Cameroun: Social Origins of the U.P.C. Rebellion*. Oxford; New York: Clarendon Press.

Lee, Alexander, and Kenneth Schultz. 2012. “Comparing British and French Colonial Legacies: A Discontinuity Analysis of Cameroon.” *Quarterly Journal of Political Science* 7 (4): 365–410.

Mattingly, Daniel. 2017. “Colonial Legacies and State Institutions in China: Evidence From a Natural Experiment.” *Comparative Political Studies* 50 (4): 434–63.

McCauley, John F., and Daniel N. Posner. 2015. “African Borders as Sources of Natural Experiments Promise and Pitfalls." *Political Science Research and Methods* 3 (2): 409–18.

McCauley, John, and Daniel Posner. 2015. “African Borders as Sources of Natural Experiments Promise and Pitfalls.” *Political Science Research and Methods* 3 (2): 409–18.

Michalopoulos, Stelios, and Elias Papaioannou. 2013. “Pre-Colonial Ethnic Institutions and Contemporary African Development.” *Econometrica* 81 (1): 113–52. https://doi.org/10.3982/ECTA9613.

Min, Brian, Kwawu Mensan Gaba, Ousmane Fall Sarr, and Alassane Agalassou. 2013. “Detection of Rural Electrification in Africa Using DMSP-OLS Night Lights Imagery.” *International Journal of Remote Sensing* 34 (22): 8118–41.

Murdock, George Peter. 1981. *Atlas of World Cultures*. Pittsburgh : Chicago: University of Pittsburgh Press Chicago.