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The current submission includes:

- Page 2: Proof of my student condition
- Pages 3 to 14: Extended abstract
- Page 15 onwards: Full Working Paper

I submit both the extended abstract and a full working paper because the full working paper is a work in progress (adapted from a previous version, still being adjusted). A fully revised version will be available by September 2024.



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Spoils of colonization.

The impact of British colonial institutions on sexual prejudice

Extended abstract

Alexsandros Cavgias¹ and Cristian Navarro²

June 14, 2024

“That law was not necessary, because we already have a law which was left by the British which deals with this issue.”

Yoweri Museveni, President of Uganda

0 Introduction

The acceptance or rejection of sexual minorities is one of the most divisive social issues in modern societies [[Pew Research Center, 2020](#)]. Recently, policy changes in same-sex relationships regulation have diverged, with Latin American and European countries legalizing same-sex unions, while those in Africa still criminalizing or even increasing the repression of same-sex acts [[ILGA, 2012](#)]. Interestingly, a pronounced fraction of the variation in attitudes about homosexuality depends on country-level characteristics [[Adamczyk and Pitt, 2009](#)], suggesting that national institutions such as laws regulating same-sex acts and unions may be important drivers of such polarized beliefs.

While the economics literature has studied the causes and consequences of prejudice and discrimination towards gender and racial groups [e.g., [Lang and Kahn-Lang Spitzer, 2020](#)], it has paid less attention to sexual minorities. Furthermore, we have limited knowledge about the consequences of the legalization of homosexuality in developing countries [[Badgett et al., 2021](#)], where legal protection for sexual minorities is weaker. Using contemporaneous data on attitudes towards homosexuality, we fill these knowledge gaps by testing the hypothesis that the British Empire promoted sexual prejudice in postcolonial societies by systematically enforcing penal codes criminalizing homosexuality [e.g., [Human Rights Watch, 2013](#), [O’Mahoney and Han, 2018](#)].

1 Motivating evidence: cross-country correlations

We start our analysis using data from the Gallup World Poll to compute basic correlations between colonial origin and sexual prejudice. This first analysis reveals that conditional on economic development, British colonial origin and sexual prejudice are significantly correlated. This first result shows the need for a deeper exploration of this relationship.

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2 Data

We test whether exposure to British colonial institutions is related to a surge in sexual prejudice using data from three main sources:

- First, we use individual-level data for a sample of 29 African countries in the Afrobarometer Survey (Wave 6). We measure sexual prejudice using an indicator equal to one if the respondent says she would *strongly/somewhat dislike* having homosexuals as neighbors, zero otherwise. We use this data in our main empirical analysis.
- Second, we employ municipal-level data for Guyana and Suriname, two countries in the Caribbean with different colonial origins that share a common border. We measure sexual prejudice with a 0 to 10 scale on how strongly the respondent approves or disapproves homosexuals being permitted to run for public office. We use this data as an additional exercise in the Geo-RDD across countries (see below), to increase external validity.
- Finally, we use global cross-country data from the Gallup World Poll. We measure sexual prejudice using an indicator equal to one if the respondent says their city or area is not a "good place" for gay and lesbian people to live. We use this data in our last exercise of the mechanism analysis.

Additionally, we use an extensive set of country and village-level controls from a variety of sources (see Table A1).

3 Methodology

Our main empirical analysis consists of two different identification strategies using the Afrobarometer sample of African respondents.

Methodology 1: OLS across countries. We start by estimating the regression model:

$$Prejudice_{i,c,v} = \alpha + \beta^{GB} British_c + \gamma_1 \mathbf{x}_c + \gamma_2 \mathbf{x}_v + \gamma_3 \mathbf{x}_i + \epsilon_{i,c,v} \quad (1)$$

where i denotes a respondent, and v and c denote the current village and country of residence, respectively. $Prejudice_{i,c,v}$ is the measure of sexual prejudice of respondent i . $British_c$ is an indicator taking value 1 when individual i lives in country c with British colonial origin. Respectively, \mathbf{x}_c , \mathbf{x}_v , and \mathbf{x}_i are vectors of country, village, and individual level predetermined controls to account for potential Omitted Variables Bias. Our coefficient of interest, β^{GB} , measures the average effect of British colonial institutions on sexual prejudice.

Methodology 2: Geo-RDD across countries. To increase the plausibility of our identification, we estimate a Geographic Regression Discontinuity Design (Geo-RDD) using the Southern and

Eastern African sample. It identifies the effect of British colonial institutions by comparing individuals in villages exposed to British colonial institutions (treatment group) with those exposed to Portuguese colonial institutions (control group), near the national borders.³

To implement the Geo-RDD across countries, we estimate the regression model:

$$Prejudice_{i,c,v} = \alpha + \beta^{GB} British_c + f(v) + \gamma_1 \mathbf{x}_i + \gamma_2 \mathbf{x}_v + \epsilon_{i,c,v} \quad (2)$$

where i, v, c, \mathbf{x}_v , and \mathbf{x}_i have the same definition as in (1), and $f(v)$ is the RD-polynomial.

4 Main results

Results 1: OLS across countries. First, results from the OLS across countries (Table 1) show that exposure to British colonial institutions increases sexual prejudice by 20 p.p. compared to former French or Portuguese colonies, around 25% of the outcome average in this sample.

Results 2a: Geo-RDD across countries. Results from the Geo-RDD across countries (Figure 1) confirm the previous picture: exposure to British colonial institutions increases sexual prejudice by 42 p.p. compared to a control group exposed to Portuguese colonial institutions.

Additionally, we estimate a similar regression for the case of Guyana (former British colony) and Suriname (former Dutch colony). Results are shown in Figure 2. Though estimates are less precise (municipal-level data), they point in the same direction: sexual prejudice is higher on the British side of the border.

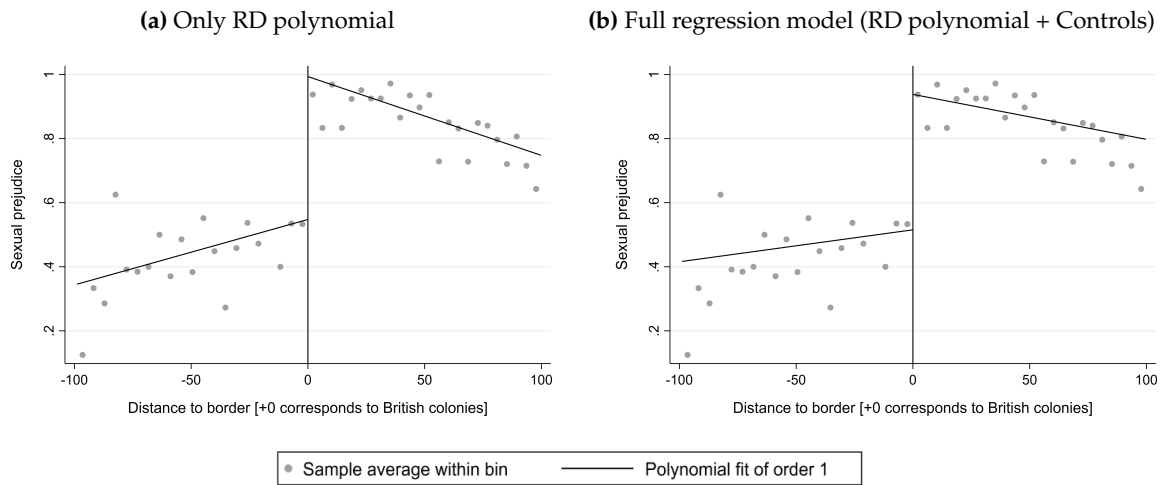
Table 1: OLS across countries: Former British colonies have higher sexual prejudice than former French and Portuguese colonies in contemporary Africa after colonization

	OLS				Ordered logit
	(1)	(2)	(3)	(4)	(5)
British	0.102 (0.108)	0.146* (0.082)	0.198*** (0.069)	0.199*** (0.069)	0.985*** (0.368)
Country controls	Yes	Yes	Yes	Yes	Yes
Village controls (geographical)	No	Yes	Yes	Yes	Yes
Village controls (historical)	No	No	Yes	Yes	Yes
Individual controls	No	No	No	Yes	Yes
Outcome average	0.80	0.80	0.80	0.80	3.41
Observations	42,943	42,943	42,943	42,943	42,943
R ²	0.08	0.11	0.13	0.13	0.08
Clusters (country)	29	29	29	29	29
Clusters (ethnic groups)	379	379	379	379	379

Note: This table reports the effect of British colonial institutions on sexual prejudice estimated by the OLS across countries. The complete regression model in Equation 1 is in Column (4). Column (5) uses an alternative codification of the outcome (5 categories of the original survey question, from *Strongly like* to *Strongly dislike*). Two-way standard errors clustered by country and ethnic location level between parenthesis. ***p<0.01, **p<0.05, *p<0.10.

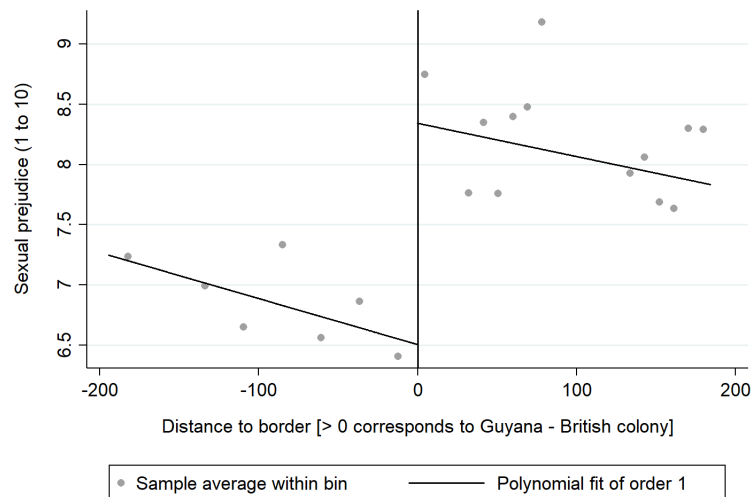
³ Countries in the sample are Mozambique, Tanzania, Malawi, Zambia, Zimbabwe, South Africa and Eswatini.

Figure 1: Geo-RDD across countries (Southeast Africa): sexual prejudice is higher in the British side of colonial borders



Note: This figure displays RD plots from the estimations of the **Geo-RDD across countries** using the Southern and Eastern African sample. We provide results with and without controls. Controls include village-level geographical controls, village-level historical controls, and individual-level controls. Bins are chosen to minimize integrated mean squared error.

Figure 2: Geo-RDD across countries (Guyana and Suriname): External validity



5 Mechanisms and falsification

British colonial origin could be related to higher levels of homophobia through different channels. We propose and test the plausibility of four of them.

Differences in socioeconomic outcomes. First, it could be that higher levels of homophobia were the result of differences in socioeconomic outcomes or differential exposure to missionary activity caused by British colonial institutions. Results in Table A2 show that this is unlikely to be the case, as results persist after controlling for differences in education, income, religious affiliation, and exposure to missionary activity across respondents.

Persistence of sub-national institutions. A second plausible explanation is that the observed increase in contemporaneous homophobia occurs through the persistence of sub-national institutions instead of national institutions. We test it by exploring the case of Cameroon, a country which current territory was split between the British and French Empires. We estimate a Geo-RDD in a sample of individuals near the colonial border between French and British Cameroon. Results from this exercise (Figure A1) suggest this hypothesis is unlikely to hold: contemporaneous levels of homophobia are similar once we net out the effect of national institutions.

Generalized increase in intolerance. A third alternative hypothesis is that the increase in sexual prejudice could be part of a generalized increase in intolerance. Results in Table A3, in which we perform falsification exercises using measures of prejudice towards other groups as an outcome, show that this is not the case: British colonialism is not related to higher prejudice in other dimensions. Moreover, our main results persist after controlling for such measures of social prejudice towards other collectives in our main specifications.

Persistence of homophobic laws. A final competing hypothesis is that the increase in sexual prejudice could be motivated by the persistence of the laws implanted by British colonizers after the colonial period, in line with the *legitimacy model* [Flores and Barclay, 2016].

To test this hypothesis, a simple mediation analysis using data from the Gallup World Poll, similar to the specification in Equation 1, but applied to country-level data, serves as a first step. In such analysis, first, we estimate the effect of British colonial institutions on contemporaneous levels of sexual prejudice. Then, we estimate the effect of British colonization on the existence of contemporaneous laws criminalizing homosexuality. Third, we estimate the relationship between the existence of contemporaneous laws criminalizing homosexuality and contemporaneous levels of sexual prejudice. Finally, we estimate again the effect of British colonial institutions on sexual prejudice, but this time controlling for the persistence of laws criminalizing homosexuality.

Results are shown in Table 2. In addition to confirming previous findings, we observe that former British colonies are more likely to still have laws criminalizing homosexuality (Column [2]) and a high correlation between criminalization of same-sex relationships and sexual prejudice (Column [3]), as expected. Finally, and most importantly, Column [4] shows that persistence of laws criminalizing same-sex acts explains most of the pronounced association between British colonization and sexual prejudice.

Table 2: OLS across countries in the World Gallup Poll (WGP) sample:
The persistence of laws criminalizing same-sex acts explains most of the pronounced association between British colonization and sexual prejudice

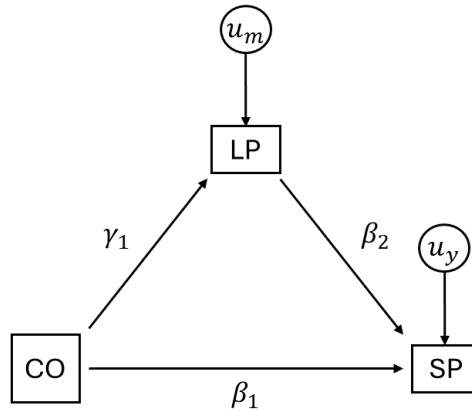
	(1)	(2)	(3)	(4)
	Sexual Prejudice	Criminalize	Sexual Prejudice	Sexual Prejudice
British	0.141 [0.041]***	0.653 [0.068]***		0.011 [0.040]
Criminalize			0.206 [0.033]***	0.199 [0.036]***
Observations	872	873	872	872
Num. of clusters	87	87	87	87
R-squared	0.514	0.454	0.589	0.589
Outcome average	0.647	0.385	0.385	0.647
Income per capita of 2000	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes

Note: This table displays the results of a simple mediation estimated by the OLS across countries using the World Gallup Poll (WGP) data. Our sample includes 87 former European colonies surveyed by the WGP between 2011 and 2023. All specifications include Income per capita (of 2000) as a control and Year FEs. We report standard errors clustered at the country level between parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Though these results already suggest that the persistence of homophobic laws is the most likely mechanism to explain our results, we still cannot state this unequivocally. The main challenge we observe in the estimates of columns (3) and (4) is reverse causality between the persistence of such laws and social attitudes.

To solve this, we work to specify and estimate a recursive system of equations to quantify the extent to which the impact of British colonization on contemporary sexual prejudice operates through the persistence of those laws criminalizing consensual same-sex relationships. For that purpose, we will estimate a simultaneous equation system following [Bouchouicha et al. \[2024\]](#), using data from a global sample of countries obtained from the Gallup World Poll, to which we will incorporate additional information on law persistence and exogenous controls. The starting point of the analysis is illustrated in [Figure 3](#).

Figure 3: DAGs analysis: basic empirical model



Note: This figure displays the basic model from which we start the DAGs analysis. CO, LP and SP refer to *colonial origin*, *law persistence* and *sexual prejudice*, respectively. The coefficients correspond to the underlying system of equations: $LP = \gamma_0 + CO\gamma_1 + X\gamma_2 + u_m$ and $SP = \beta_0 + CO\beta_1 + LP\beta_2 + X\gamma_3 + u_y$. X corresponds to a set of controls.

6 Conclusions

This paper provides the first causal account of how the British Empire promoted sexual prejudice in its colonies. Across different methodologies, we find substantial effects of exposure to British colonial institutions on sexual prejudice in postcolonial societies. Mechanism analysis suggests that the effect of British colonization on current attitudes towards homosexuality is likely to occur through the persistence of homophobic laws implanted by British colonizers, that had endured in the postcolonial period.

An immediate policy recommendation for governments interested in promoting tolerance towards sexual minorities is repealing colonial laws criminalizing same-sex acts. Our results also showcase the social costs of criminalizing behaviors such as drug consumption or prostitution, suggesting that decriminalization could decrease prejudice against those involved.

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Appendix

A Data: Additional Tables and Figures

Table A1: Description of variables used in the analysis

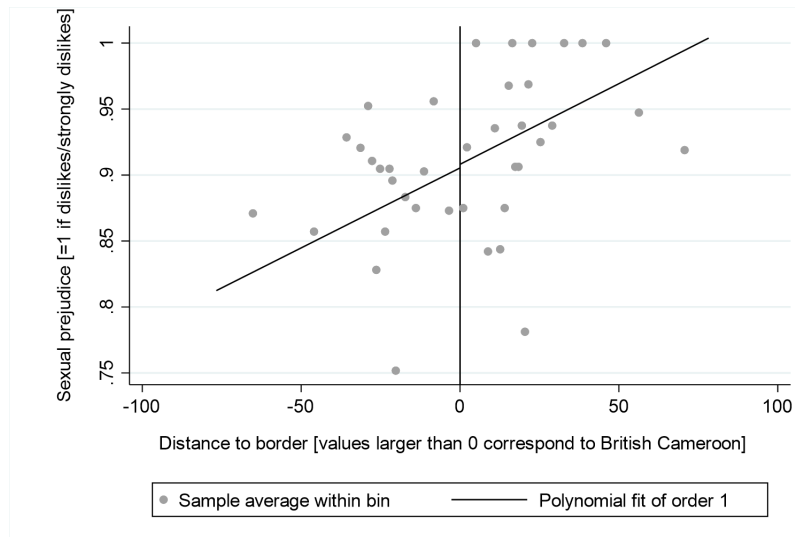
Variable	Description	Source
Panel A: Outcomes and treatment		
Sexual prejudice [0 to 4]	Increasing discrete measure of sexual prejudice taking values from 0 to 4 if the respondent would <i>strongly like</i> , <i>somewhat like</i> , <i>not care</i> , <i>somewhat dislike</i> or <i>strongly dislike</i> having homosexuals as neighbours, respectively.	Afrobarometer
Sexual prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having homosexuals as neighbours, 0 otherwise.	Afrobarometer
Religious prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having people of different religion as neighbours, 0 otherwise.	Afrobarometer
Ethnic prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having people of different ethnicity as neighbours, 0 otherwise.	Afrobarometer
HIV prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having people with HIV as neighbours, 0 otherwise.	Afrobarometer
Immigration prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having immigrants or foreign workers as neighbours, 0 otherwise.	Afrobarometer
British Colony	Dummy taking value one if respondent currently lives in a country that formerly was a British Colony.	La Porta et al. [2008]
French Colony	Dummy taking value one if respondent currently lives in a country that formerly was a French Colony.	La Porta et al. [2008]
Portuguese Colony	Dummy taking value one if respondent currently lives in a country that formerly was a Portuguese Colony.	La Porta et al. [2008]
Panel B: Country level controls		
Region [West Africa]	Dummy taking value one if respondent currently lives in West Africa.	Afrobarometer
Region [East Africa]	Dummy taking value one if respondent currently lives in East Africa.	Afrobarometer
Region [South Africa]	Dummy taking value one if respondent currently lives in South Africa.	Afrobarometer
Region [North Africa]	Dummy taking value one if respondent currently lives in North Africa.	Afrobarometer
Region [Central Africa]	Dummy taking value one if respondent currently lives in Central Africa.	Afrobarometer
Former German Colony	Dummy taking value one if respondent currently lives in a country that formerly was a German Colony.	La Porta et al. [2008]
Panel C: Geographical controls (village level)		
Latitude	Latitude at the current location of the respondent.	Afrobarometer
Longitude	Longitude at the current location of the respondent.	Afrobarometer
Temperature	Mean temperature (in degrees Celsius) in the period from 2011 to 2020 from a grid at 0.5° resolution, matched to the current location of the respondent.	Climatic Research Unit (TS v. 4.07)
Elevation	Elevation (in meters) from a grid at 1km resolution, computed as the mean from the 5 by 5 cells centered in the current location of the respondent.	USGS (GTOPO30)
Slope	Slope (in degrees) computed from a grid at 1km resolution, matched to the current location of the respondent.	USGS (GTOPO30)
Distance to coast	Minimum distance (in kilometers) from the current location of the respondent to the coastline.	GSHHG
Distance to diamond mines	Distance (in kilometers) from the current location of the respondent to the closest diamond deposit.	DIADATA - Peace Research Institute Oslo
Panel D: Historical controls (village/ethnic level)		
Distance to Saharan trade routes	Minimum distance to the routes of the Saharan trade from the centroid of the land historically inhabited by the ethnic group in which the current location is located.	Nunn and Wantchekon [2011] Originally, Murdock [1959] and Century Company [1911]
Distance to colonial railways	Distance (in kilometers) from the current location to the closest colonial railway.	Nunn and Wantchekon [2011] Originally, Oliver [2000]
Distance to national border	Distance (in kilometers) from the current location of the respondent to the closest national border.	United Nations
Panel E: Individual controls		
Sex	Dummy taking value one if respondent is a female.	Afrobarometer
Age [18 to 24]	Dummy taking value on if respondent is 18 to 24 years old.	Afrobarometer
Age [25 to 34]	Dummy taking value on if respondent is 25 to 34 years old.	Afrobarometer
Age [35 to 44]	Dummy taking value on if respondent is 35 to 44 years old.	Afrobarometer
Age [45 to 54]	Dummy taking value on if respondent is 45 to 54 years old.	Afrobarometer
Age [+55]	Dummy taking value on if respondent is 55 years old, or older.	Afrobarometer

Table A2: Mechanisms: Estimates show that neither variation in education, income and religious affiliations nor differential exposure to Missionary activity are likely to explain our results

	Cross-country				Geo-RDD across countries			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
British	0.206*** (0.069)	0.190*** (0.068)	0.202*** (0.070)	0.197*** (0.068)	0.419*** (0.037)	0.426*** (0.043)	0.431*** (0.039)	0.422*** (0.039)
Country controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Village controls (geographical)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Village controls (historical)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional controls	Education FE	Income FE	Religion FE	Missions	Education FE	Income FE	Religion FE	Missions
Outcome average	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Baseline coefficient [β_{CB}]	0.199	0.199	0.199	0.199	0.423	0.423	0.423	0.423
Observations	42,864	42,695	42,744	42,943	4,951	4,933	4,929	4,968
R ²	0.14	0.14	0.13	0.13	0.21	0.21	0.21	0.21

Note: This table replicates our main results including a set of controls (potentially endogenous to British colonization) regarding socioeconomic status and local exposure to Missionary activity. Columns (1) to (4) replicate the estimates in Table 1, and Columns (5) to (8) do so for estimates in Figure 1. Two-way standard errors clustered by country and ethnic location level between parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Figure A1: Mechanisms: Historical exposure to British colonial institutions is not associated to an increase in sexual prejudice of individuals exposed to the same national institutions after colonization



Note: This figure displays the RD plot from the estimation of the **Geo-RDD within Cameroon**.

Table A3: Mechanisms: Estimates show that a general increase in prejudice in former British colonies is unlikely to explain our results

	OLS across countries		Geo-RDD across countries	
	(1)	(2)	(3)	(4)
	Social Prejudice	Sexual Prejudice	Social Prejudice	Sexual Prejudice
British	-0.175 (0.237)	0.209** (0.079)	-1.299*** (0.160)	0.512*** (0.058)
Social Prejudice		0.048*** (0.008)		0.061* (0.026)
Country controls	Yes	Yes	Yes	Yes
Village controls (geographical)	Yes	Yes	Yes	Yes
Village controls (historical)	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes
Outcome average		0.80		0.80
Baseline coefficient [β_{GB}]		0.199		0.423
Observations	42,501	42,501	4,913	4,913
R ²	0.07	0.16	0.08	0.25

Note: This table displays a falsification exercise using an index of prejudice against other collectives (different ethnic groups, immigrants, different religious affiliation, people with HIV) as outcomes (Columns (1) and (3)) or control variables (Columns (2) and (4)). Columns (1) and (2) replicate the estimates in Table 1, and Columns (3) and (4) do so for estimates in Figure 1. Two-way standard errors clustered by country and ethnic location level between parenthesis. ***p<0.01, **p<0.05, *p<0.10.

Spoils of colonization. The impact of British colonial institutions on sexual prejudice

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June 14, 2024

VERY PRELIMINARY: PLEASE DO NOT CIRCULATE - This version is a work in progress. It has been significantly modified from a previous version, but is still being adapted. A fully revised version will be available by early September 2024.

Abstract

This paper tests the widely debated hypothesis that British colonial institutions promoted sexual prejudice - i.e., negative feelings against sexual minorities - in postcolonial societies. Using two different methodologies (OLS across countries and Geo-RDD across countries), we find substantial effects of exposure to British colonial institutions on sexual prejudice in postcolonial societies, ranging from ten to fifty per cent of the outcome average. Mechanisms analysis suggests that a generalized increase in prejudice and differences in socioeconomic outcomes caused by British colonial institutions are unlikely to explain our results. In line with historical accounts, our results are consistent with a stronger presence, enforcement, and persistence of sodomy laws enforced by the British Empire promoting sexual prejudice in postcolonial societies.

“That law was not necessary, because we already have a law which was left by the British which deals with this issue.”

Yoweri Museveni, President of Uganda

1 Introduction

Growing evidence from developed countries shows that members of sexual minorities have worse education and health outcomes than heterosexual individuals [Sansone, 2019a, Buchmueller and Carpenter, 2010], and homosexual men have lower earnings than their heterosexual peers. Furthermore, recent research links the degree of discrimination in the labour market against sexual minorities with the degree of sexual prejudice [Tilcsik, 2011] and improvements in labour market outcomes of same-sex couples caused by the legalization of same-sex marriage to decreases in sexual prejudice [Sansone, 2019b]. Therefore, a clear understanding of the causal determinants of *sexual prejudice* is crucial for designing policies that improve the welfare of sexual minorities.¹

The acceptance or rejection of sexual minorities by society is one of the most divisive social issues in modern societies [Pew Research Center, 2020]. Recently, policy changes in same-sex relationship regulation have diverged, with Latin American and European countries legalizing same-sex unions, while those in Africa still criminalizing or even increasing the repression of same-sex acts [ILGA, 2012]. Interestingly, a pronounced fraction of the variation in attitudes about homosexuality depends on country-level characteristics [Adamczyk and Pitt, 2009], suggesting that national institutions such as laws regulating same-sex acts and unions may be important drivers of such polarized beliefs.

While the economics literature has studied the causes and consequences of prejudice and discrimination towards gender and racial groups [e.g., Lang and Kahn-Lang Spitzer, 2020], it has paid less attention to the determinants of prejudice towards sexual minorities, which represent a non-negligible fraction of the population.² Furthermore,

¹We rely on a definition of *sexual prejudice* used by social psychologists: “a negative attitude toward an individual based on her or his membership in a group defined by its members’ sexual attractions, behaviours, or orientation” [Herek and McLemore, 2013, p. 311].

²In the US, around five per cent of the individuals are self-declared members of a sexual minority

while a growing body of evidence documents that the legalization of homosexual conduct [Corneo and Jeanne, 2009], and recognition of same-sex relationships [Aksoy et al., 2020, Ofosu et al., 2019] improve attitudes towards sexual minorities in developed countries, we have limited knowledge about the consequences of such policies in developing countries [Badgett et al., 2021], where policy changes sometimes diverge from developed countries and legal protection for sexual minorities is weaker.³⁴ Using contemporary Africa as a laboratory, we fill these knowledge gaps by testing the widely debated hypothesis that the British Empire promoted sexual prejudice in postcolonial societies by systematically enforcing penal codes criminalizing consensual same-sex acts [e.g., Human Rights Watch, 2013, O'Mahoney and Han, 2018].

Sexual prejudice is an economically relevant phenom. First, in general, low-prejudice environments usually have higher levels of subjective well-being [Inglehart et al., 2008]. Second, sexual prejudice is a precondition for discrimination and intolerance against sexual minorities. Third, sexual prejudice decreases the welfare of individuals with innate same-sex attraction by affecting their marital decisions. Furthermore, since sexual orientation is not apparent during social interactions, sexual prejudice also harms the welfare of heterosexual individuals by inducing them to take costly actions to prevent sexual stigma [Herek and McLemore, 2013, p. 313], causing a costly misallocation of talent [Hsieh et al., 2019]. For instance, heterosexual men may avoid working in well-paid but female-dominated occupations not to be perceived as homosexuals.

The impact of British colonial institutions on the current levels of sexual prejudice is *a priori* ambiguous. Contrary to the other European colonial powers, the British Empire systematically criminalized same-sex acts by importing its alien penal codes and common law magistrates to its colonies [Han and O'Mahoney, 2014, O'Mahoney and Han, 2018], which should increase sexual prejudice according to the *legitimacy model* [Flores and Barclay, 2016]. On the other hand, consistent evidence shows that countries with former British colonies have better economic outcomes [La Porta et al., 2008] and educational achievement [Cogneau and Moradi, 2014, Dupraz, 2019], which should decrease sexual prejudice according to the *modernization theory* [Inglehart et al., 2008]. Given these strong competing forces, whether British colonial institutions increased

[Black et al., 2007], a likely underestimate of the actual size of these groups [Coffman et al., 2017].

³We use the terms *homosexual conduct* and *consensual same-sex acts* interchangeably in this draft.

⁴Plausibly, the economic gaps between sexual minorities and the rest of the population in developing countries are more extensive than those documented in developed countries because sexual prejudice is usually higher in developing countries, reinforcing the relevance of the knowledge gaps addressed by this paper.

sexual prejudice in postcolonial societies is ultimately an empirical question.

Africa is the perfect laboratory to study the impact of British colonial institutions on sexual prejudice in postcolonial societies. First, while historical accounts indicate that same-sex relationships were not rare in African tribes [Murray and Roscoe, 2001, Epprecht, 2008], postcolonial Africa has a high level of sexual prejudice compared to other continents [Boryczka, 2020], suggesting a reversal of beliefs after colonization. Second, despite high average sexual prejudice, there is variation in sexual prejudice across countries in Africa [Dionne and Dulani, 2020], making empirical strategies relying on cross-country comparisons a promising approach. Third, the African scramble imposed arbitrary colonial borders that split ethnic groups, generating plausibly exogenous variation in exposure to colonial institutions [Michalopoulos and Papaioannou, 2020, 2013].

The case of the three Guyanas suggests that British colonial institutions are an essential driver of the cross-country differences in beliefs about sexual minorities and institutions regulating homosexual conduct and same-sex unions. Located in a small region on the coast of South America, the three Guyanas had similar geography and population before colonization. However, they had different colonizers: France, Netherlands, and the United Kingdom (UK). Despite their similarities before colonization, there is a clear divergence between the three countries after colonization. In the French and the Dutch Guyanas, consensual same-sex acts became legal in the XIX century [O'Mahoney and Han, 2018]. In contrast, British Guyana is the last South American country where consensual same-sex acts remain illegal [ILGA, 2012]. Unsurprisingly, British Guyana has the lowest acceptance of homosexuality in South America nowadays [Chaux et al., 2021]. Such an emblematic case motivates the following question: Is such a contrast of beliefs and institutions between former British and non-British colonies present in a larger sample of countries?

We answer this question using data from 29 African countries in the Afrobarometer Wave 6 (AB-W6) that ask how much respondents would dislike having homosexuals as neighbours. More precisely, we measure sexual prejudice using an indicator equal to one if the respondent says she would *strongly dislike* or *somewhat dislike* having homosexuals as neighbours, and zero otherwise. In line with recent literature about motivated beliefs [Bénabou and Tirole, 2016], we implicitly assume that individuals choose between having negative or neutral-positive feelings towards individuals with a different sexual orientation, meaning that we investigate whether and how British colonial institutions influence the *choice* of not having sexual prejudice in postcolo-

nial societies. Additionally, we also use data from Latinobarometer, the World Value Surveys, and the Gallup World Poll to increase external validity and test potential mechanisms in a global sample.

Identifying the effects of British colonization on sexual prejudice in postcolonial societies is challenging. More precisely, simple cross-country comparisons suffer from omitted variable bias (OVB) if the British Empire systematically targeted territories with characteristics that correlate with sexual prejudice. First, ethnic locations exposed to British colonization may differ regarding attitudes towards sexual minorities before colonization. Second, territories exposed to British colonization may vary regarding the pre-colonial share of the population following religions that condemn homosexuality, such as Islam and Christianity. Third, such territories may also differ regarding pre-colonial levels of economic development, which is usually a strong predictor of sexual prejudice. In these plausible situations, simple cross-country comparisons are unlikely to capture the causal effect of British colonial institutions on sexual prejudice, making a case for more sophisticated empirical strategies relying on controls, fixed effects, and natural experiments.

We combine two complementary research methods to identify the effect of British colonial institutions on sexual prejudice. First, we estimate an OLS regression model using cross-country comparisons conditional on an extensive set of controls at the country, village and individual level that, according to the social psychology literature [[Herek and McLemore, 2013](#)], affect sexual prejudice *a priori*. We refer to **method 1** as **OLS across countries**. Second, restricted to a region where traditional African religions were predominant before colonization, we estimate a Geographical Regression Discontinuity Design (Geo-RDD) comparing individuals near colonial borders living in former British colonies (treatment group) with those living in former Portuguese colonies (control group). In this case, we also estimate some specifications with ethnic location fixed effects to account for biases generated by cultural differences across ethnic groups. We refer to **method 2** as **Geo-RDD across countries**.

Results from our two methodologies consistently show that individuals living in locations exposed to British colonial institutions have substantially higher sexual prejudice than those in locations with a different colonial origin. First, results from the OLS across countries show that exposure to British colonial institutions increases sexual prejudice by 20 percentage points compared to former French or Portuguese colonies, around 25% of the outcome average in this sample. Relevant to our analysis, the effect of British colonial institutions remains positive and significant when restricting

the control group to only former French (Portuguese) colonies. Second, results from the Geo-RDD across countries confirm the picture painted by the OLS across countries: exposure to British colonial institutions increases sexual prejudice by 42 percentage points compared to a control group exposed to Portuguese colonial institutions, around 52.5% of the outcome average in this sample.

We test and discard three potential mechanisms that could drive the observed effects. First, we use the case of Cameroon, whose territory was formerly split between the British and French Empires, to test whether the observed increase in contemporaneous homophobia can be explained by differences in sub-national institutions. We find no support for this hypothesis: contemporaneous levels of homophobia are similar once we net out the effect of national institutions. Second, we show that differences in socioeconomic outcomes or differential exposure to missionary activity caused by British colonial institutions are unlikely to explain our results. Third, we find that the increase in sexual prejudice is not the result of a general shift towards intolerance, as we do not find the same effects for measures of prejudice against any other collective.

Additional mechanism analysis using a global sample of countries suggests that our results are most likely explained by the impact of exposure to sodomy laws during colonization and their persistence after colonization. We use a simultaneous equation system to estimate the impact of British colonization on contemporary sexual prejudice through the presence of contemporary laws criminalizing consensual same-sex relationships. We find that almost all of the relationship between British colonial original and contemporaneous sexual prejudice takes place through this channel.

We communicate with several strands of literature. First, we relate to the broad literature studying how history influences economic development [see [Michalopoulos and Papaioannou, 2020](#), for a literature review], which shows robust cross-country evidence linking the enforcement of common law by the British Empire with better future economic outcomes [[La Porta et al., 2008](#)]. In particular, we are related to the papers using the African colonial borders to identify the economic consequences of colonial institutions [see [McCauley and Posner, 2015](#), for a comprehensive list of articles]. While comparisons across colonial borders show that former British educational institutions promoted better education achievement [[Cogneau and Moradi, 2014](#), [Dupraz, 2019](#)], recent contributions using African data challenge the optimistic view about the legacies of British colonization by showing that its common law caused higher HIV rates among women [[Anderson, 2018](#)] and its indirect rule depressed national identification [[Ali et al., 2018](#)] and fostered corruption among local chiefs [[Ali et al., 2020](#)].

We contribute to this literature by providing the first causal account of the widely debated hypothesis that the British Empire created a legacy of sexual prejudice by criminalizing same-sex acts [O'Mahoney and Han, 2018, Han and O'Mahoney, 2014], showcasing a novel undesirable legacy of British colonization.

Second, we dialogue with the scholarly work investigating the interdependence between culture and institutions [see Alesina and Giuliano, 2015, for a literature review]. In special, we communicate with academic work documenting the undesirable influence that colonial institutions have on contemporary cultural outcomes in Africa after colonization, such as the slave trade depressing inter-ethnic trust [Nunn and Wantchekon, 2011], the French medical mission promoting distrust of medicine [Lowe and Montero, 2021], and the Christian mission increasing sexual prejudice [Ananyev and Poyker, 2021]. We contribute to this literature by documenting that exposure to British colonial institutions criminalizing consensual same-sex acts in a setting where such acts were (likely) not criminalized before colonization causes a substantial increase in sexual prejudice after colonization, showcasing how alien legal institutions can persistently change cultural norms.

Third, we dialogue with recent literature investigating the causal determinants of the variation in attitudes towards sexual minorities over time and space, which has two main groups of papers. The first group of papers shows that historical events such as skewed sex ratios in colonial settlements [Baranov et al., 2022, Brodeur and Haddad, 2021] and Christian missions [Ananyev and Poyker, 2021] impact the distribution of attitudes towards sexual minorities over space. Furthermore, a second group of papers documents that political debates over LGBT policy issues [Fernandez et al., 2021], legalization of homosexual conduct [Corneo and Jeanne, 2009], and recognition of same-sex relationships [Aksoy et al., 2020, Ofosu et al., 2019] improve attitudes towards sexual minorities over time. Our findings bridge the two main groups of articles in this literature by showing that long-term exposure to colonial institutions that criminalize homosexual conduct causes a substantial and persistent increase in sexual prejudice across countries in postcolonial Africa.

2 Institutional background

2.1 Regulation of homosexual conduct in Europe

This subsection describes the legal regulation of sex from a comparative perspective, emphasising the legislation regulating consensual same-sex acts in the UK, Germany, France and Portugal at the start of African colonization and highlighting the different domestic policies across Europe.

Sexual morality in Europe in a comparative perspective. While all European societies plausibly had conservative attitudes towards sex at the end of the 19th century, sexual restraint and puritanism advocated by Victorian morality prevalent in the UK at this period seem extreme in *relative* terms. Consistent with this idea, social purity campaigns introduced several concrete measures restricting access to easy sex and promoting sexual restraint in the UK on a scale not seen in other European countries. For instance, the age of consent increased to sixteen years in the UK, among the highest in continental Europe and three years above the French one [Hyam, 1991, p. 66]. Also, the repeal of state-regulated prostitution and repression of street prostitution [Hyam, 1991, p.p. 65-66 & 68] contrasted with the regulatory approach of Portuguese and French authorities [Hyam, 1991, p.p. 150].

Similarly, while most European societies plausibly had very negative attitudes toward homosexual conduct at the end of the 19th century, the punishments for consensual same-sex acts were uniquely harsh in the UK. More precisely, whereas consensual homosexual conduct in private became legal in Italy, Portugal, Spain and Belgium during the XIX century (Hyam, 1991, p. 65, Frank et al., 2010, p. 878), the UK further criminalized homosexual behaviour by extending sanctions to all forms of same-sex acts between men, not only sodomy [Hyam, 1991, p. 67]. As a result, the UK was the only Western European country to impose draconian penalties for consensual homosexual conduct by men at the turn of the 20th century [Adut, 2005, p. 214].

Regulation of homosexual conduct in the UK and Germany. In the UK, consensual same-sex acts were criminalized by Section 11 of the Criminal Law Amendment Act of 1885, which prescribed harsh penalties for "gross indecency" [Hernandez-Truyol, 2020, p. 3]. Unlike most European countries, consensual same-sex acts remained illegal for most of the 20th century, only being decriminalized by the Sexual Offenses Act

of 1967 [Kirby, 2013, p. 70]. Like in the UK, Germany also criminalized same-sex conduct from the onset of African colonization until the second half of the 20th century. More precisely, Paragraph 175 of the German penal code 1871 punished consensual same-sex acts between men, surviving until 1957 and 1969, in East and West Germany, respectively [Human Rights Watch, 2013, p. 88].

Regulation of homosexual conduct in France and Portugal. Unlike the UK and Germany, France decriminalized consensual same-sex acts in 1791, immediately after the French Revolution [Han and O'Mahoney, 2014, p. 273], which have remained legal since then. During Napoleonic wars, the new French penal code, which had no sodomy law anymore, spread to continental Europe and later to its colonial possessions [Frank et al., 2010, p. 878]. In Portugal, inspired by the liberal Constitution of 1821, the Penal Code of 1852 ignored same-sex acts by excluding the word "sodomy" from its text [Cascais, 2016, p. 96]. However, six decades later, consensual same-sex acts were recriminalized in 1912 by a Metropolitan Vagrancy Law that punished "vice against nature" with up to one year of imprisonment [da Costa Santos and Waites, 2019, p. 8].

2.2 Regulation of homosexual conduct in colonial Africa

This subsection has three objectives. First, we describe the usual structure of legal systems in colonial Africa. Second, we detail the legislation regulating consensual same-sex acts in former British, French, and Portuguese African colonies. Finally, we discuss the main mechanisms by which the different colonial institutions imposed by these European powers might generate differences in sexual prejudice after colonization.

Legal systems. Across three main European empires in Africa, colonial penal codes are generally applied to European settlers and a small fraction of the native population. First, since the *indirect rule* prevailed in former UK colonies, customary law likely resolved most legal matters involving the native population, including cases related to homosexual conduct. Second, like in former UK colonies, the *indirect rule* also prevailed in former Portuguese colonies, where only European citizens and the *assimilados*, natives with regular occupation and literacy in Portuguese, were subject to colonial legislation [da Costa Santos and Waites, 2019, p. 8]. Third, although *direct rule* prevailed in former French colonies, the legal system was similar to the one in former

Portuguese and French colonies: only Europeans and *citoyens*, a minority of assimilated natives, were subject to colonial penal codes, in contrast, the *sujets*, the remaining native population, were subject to their customary laws [Guarnieri and Rainer, 2021, p. 4]. Finally, the interaction between natives and the government in French Africa was regulated by the *indigénat*, a set of laws used to subjugate the native population to the objectives of the French administrators by imposing forced harsh penalties such as forced labour, compulsory taxes, and asset expropriation (Berizon and Briggs, 2016, p.p. 333-334, Mann, 2009, p.p. 343-344)

British Africa. The British Empire systematically criminalized consensual same-sex acts in its colonies. Table A1 in Appendix A describes the legislation used for regulating homosexual conduct in each of the former British colonies in our sample. Respectively, Columns (2), (3), and (4) list the legal base, the prescribed sanction for consensual same-sex acts, and the date of adoption of the regulation for each country in Column (1). A clear pattern emerges from Table A1: virtually all former British colonies in our sample adopted legal bases imposing harsh penalties for consensual same-sex acts, with Ghana and Sudan being the only exceptions.

There were four legal bases for criminalizing homosexual conduct in former British colonies. First, four countries (Kenya, Malawi, Tanzania, Uganda) among the 14 former British colonies in our sample adopted the Indian Penal Code (IPC) of 1860, which prescribed up to 10 years of imprisonment for consensual same-sex acts [O'Mahoney and Han, 2018, p. 13]. Second, seven former British colonies (Botswana, Kenya, Malawi, Nigeria, Tanzania, Uganda, and Zambia) in our sample adopted the Queensland Criminal Code (QCC) of 1899, which punished consensual same-sex acts with a 14-year prison sentence with hard labour [O'Mahoney and Han, 2018, p. 20].⁵ Third, Swaziland regulated consensual same-sex acts following the British Common Law stated in the Offenses Against the Person Act of 1861, which penalized such practices with ten years of servitude from life imprisonment [O'Mahoney and Han, 2018, p. 31]. Forth, Ghana adopted the draft of the Jamaican Penal Code of 1877, which, in contrast to all countries except Sudan, distinguished between nonconsensual and consensual same-sex acts, considering the latter as a misdemeanour and punished it with two years of servitude [O'Mahoney and Han, 2018, p. 16]. Fifth, originally a Dutch colony, South Africa criminalized consensual same-sex acts according to the Roman-Dutch common law brought by its original colonizers [O'Mahoney and Han,

⁵The QCC was the model for the Nigerian Penal Code of 1904, which migrated to several African countries, substituting the IPC in several cases (Kenya, Malawi, Tanzania, and Uganda) [O'Mahoney and Han, 2018, p. 34].

2018, p. 29], which could prescribe a capital sentence for consensual same-sex acts. The Roman-Dutch common law remained during British rule and spread to colonies under South African influence, like Namibia, Zambia, and Zimbabwe [O'Mahoney and Han, 2018, p.p. 29-30].

French Africa. The French applied their legal system uniformly in its different colonies [Berizon and Briggs, 2016, p. 339]. Given this practice, the hypothesis that the 1791 French Penal Code made homosexual conduct legal in the French colonies is very plausible. Not surprisingly, it is widely accepted that consensual same-sex acts were not systematically criminalized in French African colonies because they were legal in France at the onset of colonization (e.g., Frank et al., 2010, p. 13; Ireland, 2013, p. 57; Han and O'Mahoney, 2014, p. 273). In line with this presumption, only nine of 19 former French colonies in Africa criminalize consensual same-sex acts nowadays, seven of them through legislation approved after independence [ILGA, 2012].

Portuguese Africa. The law that criminalizes homosexual conduct in the Portuguese African colonies was enforced at the end of the colonial period but persisted after independence. As mentioned above, same-sex acts were criminalized again in Portugal by the 1912 Metropolitan Vagrancy Law 1912. However, such regulation was applied to colonies after four decades, being fully extended to Portuguese territories only in 1954, when the penal code was revised [da Costa Santos and Waites, 2019, p. 9]. Despite late enforcement, the legislation persisted after independence for all 20th century until being recently abolished in Cape Verde (2004), São Tomé and Príncipe (2012), Mozambique (2015), and Angola (2019).

Enforcement of sodomy laws from a comparative perspective. Existing archival evidence investigating the enforcement of colonial laws criminalizing homosexual conduct is scarce, showing incomplete numbers for a few countries and periods. First, in former British Africa, there are records of a modest number of judicial cases per year in Zimbabwe [= 9.4] [Murray and Roscoe, 2001, p. 206] and a low number of convictions per year in Kenya [= 0.33] [da Costa Santos and Waites, 2019, p. 19]. In line with the idea of *some* enforcement of sodomy laws in former British colonies, the number of convictions per year in former British colonies in Oceania, such as South New Wales [= 4.15], Victoria (= 11.9), and Papua New Guinea [= 7.9] are similar to those of Zimbabwe. [Aldrich, 2003, p. 221 & p. 258]. In contrast to the former British colonies, extensive archival research did not document instances of crimes related to consensual same-sex acts in the former Portuguese colony of Mozambique, with only

a few charges for minor crimes that mention homosexual conduct as an aggravating factor [Miguel, 2021, p. 122].

What can we learn from such scarce historical accounts? Naturally, as archival evidence covers only a fraction of the universe of cases and a few countries, these numbers should be interpreted with a grain of salt because they likely underestimate the actual enforcement of sodomy laws. However, two lessons seem reasonable. First, it appears that there was *some* enforcement of sodomy laws in former British colonies, not more than a case per month. Second, assuming that the underestimation of cases is similar across countries, we can interpret the contrast between *some cases* in several former British colonies and *no cases* in Mozambique as a signal of stricter enforcement of sodomy laws by the British colonial authorities concerning the Portuguese ones.

How should British colonial institutions impact sexual prejudice in contemporary Africa? Several features of British colonization may impact the sexual prejudice of individuals living in its former colonies compared to those living in countries with a different colonial origin. First, unlike the other European powers, the UK systematically enacted laws criminalizing consensual same-sex acts in its colonies, which persisted after colonization [Han and O'Mahoney, 2014]. Therefore, the differences in the legal framework regulating consensual same-sex acts are an important feature of our treatment. According to the *legitimacy model*, the persistence of legislation in former British colonies should decrease the acceptance of homosexual conduct, increasing sexual prejudice [Flores and Barclay, 2016].

Second, consistent evidence shows that countries with British common law have better economic institutions and outcomes than those under civil law [La Porta et al., 2008]. Then, according to the *modernization theory*, better socioeconomic conditions lead to praise of self-expression and recognition of diversity in human choices, decreasing prejudice towards different ways of living, such as homosexual conduct [Inglehart et al., 2008].

Third, the educational systems in colonial Africa were different and generated distinct educational results. The British educational system in Africa relied on decentralized missionary schooling in local languages, contrasting with the centralized educational system imposed by the French, which had French as the unique language of instruction [Cogneau and Moradi, 2014, p. 695]. Like British colonies, Portuguese colonies relied on missionary education but offered a simplified curriculum that focused on generating basic labour market skills among native populations [da Costa Santos and

Waites, 2019, p. 12]. Credible evidence shows that the British educational system promoted higher education achievement in Africa [Cogneau and Moradi, 2014, Dupraz, 2019]. Hence, higher education achievement in former British colonies may decrease sexual prejudice by improving socioeconomic conditions, preventing literal and extremist readings of religious texts, and promoting non-threatening contact with individuals with distinct sexual orientations in the labour market.

3 Data

In this section we describe the data used in our two main estimation strategies. Additional data used in the mechanism analysis is directly described in the corresponding section, when applicable.

3.1 Defining outcomes, treatment, and controls

Outcome variable. We build our two *increasing* measures of sexual prejudice using Question 89 Item C (hereinafter, Q89C) from the AB-W6, which asks:

For each of the following types of people, please tell us whether you would like to have people from this group [C. Homosexuals] as neighbours dislike it, or do not care. 1. Strongly dislike. 2. Somewhat dislike. 3. Would not care. 4. Somewhat like. 5. Strongly like.

First, we measure sexual prejudice at the *extensive margin* using an indicator equal to one if the respondent says she would *Strongly dislike* or *Somewhat dislike* having homosexuals as neighbours and zero otherwise - i.e., $Prejudice = \mathbb{1}(Q89C \leq 2)$. In line with the definition of sexual prejudice used by social psychologists Herek and McLemore [2013], we measure if a respondent displays any negative feelings towards individuals with a different sexual orientation, regardless of their intensity. Second, we measure sexual prejudice at the *intensive margin* using a five-scale discrete variable ranging from one (*Strongly like*) to five (*Strongly dislike*) - i.e., $Prejudice^{INT} = 5 - Q89C$. We use the indicator measuring sexual prejudice at the extensive margin as our main outcome and the five-scale index measuring sexual prejudice at the intensive margin as a complementary outcome.

Falsification outcomes. We build a measure of *social prejudice* using the first principal component of the extensive margin measures of prejudice towards the four additional groups measured by Q89 (people of a different religion, people from other ethnic groups, people who have HIV/AIDS, and immigrants or foreign workers).

Treatment variables. Our treatment variable $British_c$ is an indicator that takes value one if the country is a former British colony and 0 otherwise according to the widely used colonial origin data from [La Porta et al. \[2008\]](#).

Control variables. We divide $\mathbf{x} = (\mathbf{x}_c, \mathbf{x}_v, \mathbf{x}_i)$ in three blocks: controls at the country level \mathbf{x}_c , village level \mathbf{x}_v , and individual level \mathbf{x}_i . First, \mathbf{x}_c is a vector with six country-level controls: it includes indicators for the five African macroregions, and one indicator for whether the country had ever been a German colony to account for the confounding effects of criminalizing homosexual conduct in German colonies transferred to the UK after WWI. Second $\mathbf{x}_v = (\mathbf{x}_v^G, \mathbf{x}_v^H)$ is a vector of village-level controls with geographical controls \mathbf{x}_v^G and historical controls \mathbf{x}_v^H . \mathbf{x}_v^G is a vector with eight geographical controls: latitude and longitude (in degrees); average temperature (in °C); elevation (in m); slope (in °); distance to the national border (in km); distance to coast (in km); and distance to diamond mines (in km). \mathbf{x}_v^H is a vector with three historical variables: distance to Saharan trade routes (in km), distance to colonial railways (in km) and distance to the closest national border (in km). Third, \mathbf{x}_i is a vector with six individual-level controls: a sex dummy and indicators for five age categories, to account for the evidence showing that women and younger individuals usually display lower sexual prejudice [[Herek and McLemore, 2013](#)]. Table B1 in the Appendix B precisely defines each control variable in \mathbf{x} and their sources.

3.2 Defining our two estimating samples

Sample 1: OLS across countries. We estimate our OLS across countries using a sample of countries with either British, French or Portuguese colonial origin included in the AB-W6 that asks Q89C.⁶ Figure B3 in Appendix B displays a map with the countries in

⁶We excluded two groups of countries from the estimating sample of the OLS across countries. First, we excluded countries with Belgium (Burundi) and US colonial heritage (Liberia) from the sample to focus on cases where we have good qualitative information about the colonial institutions that affect sexual prejudice a priori, such as laws criminalizing same-sex acts and education policies. Second, we excluded two countries with more than one colonial origin (Cameroon and Mauritius) to estimate the correlation between sexual prejudice and British colonial institutions without mixing cross-country and within-country variation.

AB-W6 that ask questions in different colours according to their colonial heritage. The sample used in the OLS across countries consists of 14 former British colonies in grey (Botswana, Ghana, Kenya, Lesotho, Malawi, Namibia, Nigeria, Sierra Leone, South Africa, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe), 12 former French with horizontal line pattern (Benin, Burkina Faso, Cote d'Ivoire, Gabon, Guinea, Madagascar, Mali, Morocco, Niger, Senegal, Togo, Tunisia), and 3 former Portuguese colonies in black (Cabo Verde, Mozambique, São Tomé and Príncipe). The sample used to estimate the OLS across countries has 42,943 respondents in 29 different countries spread across 5,747 villages within 379 different ethnic locations.

Sample 2: Geo-RDD across countries. We identify the causal effect of British colonial institutions on sexual prejudice by estimating a Geo-RDD across countries using a sample of villages in Southern and Eastern Africa within 100 km of colonial boundaries that divide ethnic locations between the British and Portuguese Empires. Figure B4 shows a map with polygons of ethnic locations along the Portuguese-British colonial boundaries. As Figure B4 illustrates, there are six former British colonies in the control group (South Africa, Swaziland, Zimbabwe, Zambia, Malawi and Tanzania) and one former Portuguese colony in the treatment group (Mozambique). The sample used in the Geo-RDD across countries has 4,968 observations spread across 653 villages in 31 ethnic locations. Relevant to our analysis, 10 ethnic locations are split between the British and Portuguese colonial Empires and have at least one village sampled on each side of the boundary, which allows us to estimate one stringent Geo-RDD across countries with ethnic location fixed effects. Column (2) of Table C2 shows averages of all control variables in $\mathbf{x} = (\mathbf{x}_c, \mathbf{x}_v, \mathbf{x}_i)$ for the sample used in the Geo-RDD across countries.

We choose this sample for several reasons. First, as Southern and Eastern Africa had limited Islam and Christian populations before colonization, the laws criminalizing consensual same-sex acts were unlikely to exist in this context, creating a setting where colonial institutions could change culture by importing alien social norms. Second, as Figure B4 illustrates, the sample used by the OLS across countries has good coverage in Eastern and Southern Africa, including all seven former British colonies sharing a boundary with Mozambique. Third, several former French colonies in Northern Africa (e.g., Algeria, Tunisia) and Western Africa (e.g., Senegal) were Muslim majorities and condemned consensual same-sex acts before colonization, creating a setting where the French institutions decriminalizing same-sex acts may increase sexual prejudice after colonization due to cultural backlash. Fourth, as Figure B3 illustrates,

many former British colonies in Western Africa that shared borders with former French colonies (e.g., Nigeria-Niger, Senegal-Gambia) had high shares of Muslim population before colonization, creating a setting where penal codes criminalizing homosexual conduct should have a limited effect on sexual prejudice because they only reinforced pre-colonial social norms. Fifth, among the Western African countries where ethnic religions predominated before colonization, the former British colony sharing more national boundaries with former French colonies (Côte d'Ivoire, Burkina Faso, and Togo) adopted a peculiar penal code treating consensual same-sex acts as a minor crime, creating a weaker treatment in comparison to the institutional contrasts in Southern and Eastern Africa.

Prejudice across countries. Figures B1 and B2 in the Appendix B show descriptive patterns of sexual prejudice in Africa, compared to other types of prejudice or to other continents. Figure B1 shows the share of the African population with different forms of prejudice in our sample. Figure B2 shows the share of the population that exhibits sexual prejudice across continents, using data from the World Value Surveys (WVS). The descriptive patterns show that sexual prejudice is a salient phenomenon in contemporary Africa. First, around 80% of the respondents display some degree of *sexual prejudice* in contemporary Africa, around 2.7 times the share for any other type of prejudice. Second, the average sexual prejudice in Africa is abnormally high in relative terms, around two times the average in the Americas and Europe.

4 Empirical strategy

Endogeneity problems. Identifying the causal effects of British colonial institutions on sexual prejudice in postcolonial societies is challenging because of endogeneity problems. More specifically, OVB is plausible because the British Empire may have chosen territories with geographical, cultural and economic characteristics correlated with contemporary sexual prejudice. First, ethnic groups exposed to British colonial institutions may have different cultural traits correlated with current sexual prejudice, such as acceptance of consensual homosexual conduct before colonization. Second, countries colonized by the British may differ regarding the pre-colonial share of the population that followed religions that condemn homosexual conduct, such as Islam and Christianity. Third, territories colonized by the British may differ in terms of levels of economic development before colonization. Given the plausibility of OVBs, simple cross-country comparisons are unlikely to capture the causal effect of British colonial

institutions, making a case for more sophisticated empirical strategies relying on control variables, fixed effects, and natural experiments.

Methodology 1: OLS across countries. To account for OVBs caused by differences between territories with and without British colonial origin, we estimate an OLS regression model with an extensive list of pre-determined controls *a priori* correlated with our outcome and treatment variables using the sample described in Subsection 3.2. More precisely, we investigate the impact of British colonial institutions on post-colonial sexual prejudice by estimating the regression model

$$Prejudice_{i,c,v} = \alpha + \beta^{GB} British_c + \gamma_1 \mathbf{x}_c + \gamma_2 \mathbf{x}_v + \gamma_3 \mathbf{x}_i + \epsilon_i \quad (1)$$

where i denotes a respondent, and v and c denote the current village and country of residence, respectively. $Prejudice_{i,c,v}$ is the measure of sexual prejudice of respondent i . $British_c$ is an indicator taking value 1 when individual i lives in country c with British colonial origin. Respectively, \mathbf{x}_c , \mathbf{x}_v , and \mathbf{x}_i are vectors of country, village, and individual level controls defined in Subsection 3.1.

Our coefficient of interest, β^{GB} , measures the average effect of British colonial institutions on sexual prejudice and has a causal interpretation under the conditional exogeneity assumption

$$Cov[\epsilon_i, British_c | \mathbf{x}] = 0. \quad (2)$$

Although $\mathbf{x} = (\mathbf{x}_c, \mathbf{x}_v, \mathbf{x}_i)$ includes an extensive set of controls, the conditional exogeneity of $British_c$ given \mathbf{x} is still a very restrictive hypothesis because it implies that we accounted for *all* correlates of sexual prejudice that explain whether a country has British colonial origin or not, making a case for estimating β^{GB} under weaker identification hypotheses.

Methodology 2: Geo-RDD across countries. Then, to increase the plausibility of our identification, we estimate a Geographic Regression Discontinuity Design (Geo-RDD) using the Southern and Eastern African sample described in Subsection 3.2. The Geo-RDD across countries identifies the effect of British colonial institutions by comparing the sexual prejudice of individuals in villages exposed to British colonial institutions (treatment group) with those exposed to Portuguese colonial institutions (control group). Given the presence of a reasonable number of ethnic locations with villages on both sides of the boundary, we estimate a demanding Geo-RDD specification with ethnic location fixed effects that accounts for all OVBs caused by omitted variables

varying across ethnic locations, such as beliefs about homosexual conduct before colonization.

To implement the Geo-RDD across countries, we estimate the regression model

$$Prejudice_{i,c,v} = \alpha + \beta^{GB} British_c + f(v) + \gamma_1 \mathbf{x}_i + \gamma_2 \mathbf{x}_v + \epsilon_{i,c,v} \quad (3)$$

where i , v , c , \mathbf{x}_v , and \mathbf{x}_i have the same definition than in Equation (1). $f(v)$ is the RD-polynomial. As we mentioned before, we include $\alpha_{e(v)}$ capturing ethnic location fixed effects in Equation (3) in some specifications. $e(v)$ denotes the ethnic location where the village v locates.

We make two methodological choices to implement the Geo-RDD across countries. First, we restrict our sample to the sub-sample of respondents living in villages less than 100km from the British-Portuguese colonial boundary. Second, we use a local linear polynomial with a quadratic kernel, following Dell [2010], Dell et al. [2018]. We do so for a polynomial on the distance to the national boundary and a polynomial on latitude and longitude. Moreover, to test the robustness of our results to these methodological choices, we re-estimate Equation (3) using: **(i)** a quadratic RD-polynomial; **(ii)** different kernel functions (e.g., triangular); **(iii)** different sub-samples (e.g., villages within 50km, 100km and 200km near the boundary).

β^{GB} is a local average treatment effect (LATE) that measures the effect of British colonial institutions on contemporary sexual prejudice for those villages near the Portuguese-British colonial boundary. Its causal interpretation in Equation (3) requires two assumptions. First, it depends on a continuity assumption which implies that *all* the relevant factors related to contemporary sexual prejudice other than the exposure to the British colonial institutions have a smooth distribution over space at both sides of the Portuguese-British colonial boundary. In other words, letting $y^0 = Prejudice_{i,c,v}^0$ and $y^1 = Prejudice_{i,c,v}^1$ denote the potential outcomes of individual i under treatment and control, the continuity assumption implies that $E[y^0 | Lat_v, Long_v]$ and $E[y^1 | Lat_v, Long_v]$ are continuous functions of $Lat_v, Long_v$ on both sides of the Portuguese-British colonial boundary. Second, it requires an additional assumption of no selective sorting around the treatment threshold, implying that individuals with characteristics that predict sexual prejudice are not more likely to migrate from the Portuguese side of the border to the English side (and vice versa). In our setting, the two identification assumptions required by Equation (3) are less restrictive than the exogeneity assumptions defined by Equation (2) because they allow the correlates of sexual prejudice to

vary smoothly over space.

The more restricted scope of cross-country comparisons in the Geo-RDD across countries generates a more precise notion of the institutional contrasts captured by the treatment. More precisely, among other colonial and postcolonial institutional contrasts, the treatment effect estimated by Equation 3 should better capture the impact of colonial laws criminalizing homosexual conduct on sexual prejudice. First, as documented in Table A1 in Appendix A, all six former British colonies in the treatment group (South Africa, Swaziland, Zimbabwe, Zambia, Malawi, and Tanzania) criminalized consensual same-sex acts by the early 20th century. Second, in contrast with the British colonies, the former Portuguese colony in the control group (Mozambique) only criminalized same-sex acts in 1954 [da Costa Santos and Waites, 2019, p. 10], only two decades before independence from Portugal. Although the contrast between colonial institutions is clearer in this sample, β^{GB} may still capture the contrasts between postcolonial national institutions of former British and Portuguese colonies instead of their colonial institutions, motivating the need for evidence from a setting where all individuals live under the same national institutions.

5 Results

5.1 Balance checks

Balance check: Geo-RDD across countries. The continuity assumption is violated if the Portuguese-British colonial boundaries in Southern and Eastern Africa are not arbitrary. In this case, it is plausible that the villages (individuals) in the treatment group have different geographical and historical (demographic) characteristics than those in the control group. Therefore, while the continuity assumption is not testable, we test the null hypothesis $H_0 : E[(\mathbf{x}_i, \mathbf{x}_v) | British_c = 1] - E[(\mathbf{x}_i, \mathbf{x}_v) | British_c = 0]$ to assess its plausibility.

In Table C2, we assess the plausibility of the continuity assumption by showing a balance check exercise that performs (conditional) mean differences tests for the control variables in $(\mathbf{x}_i, \mathbf{x}_v)$ defined in Subsection 3.1. We report two-way standard errors clustered at the ethnic group and country level between parenthesis and spatial HAC standard errors [Conley, 1999] up to 50 km between square brackets. In Panel A, we compute the balance check statistics using an individual level specification described

by Equation (3) with a linear RD-polynomial on the distance to the nearest colonial boundary and the individual level controls in \mathbf{x}_i as dependent variables. Then, in Panels B and C, we replicate the specification of Panel A using the dependent variables at the village level instead of the individual level.⁷

Results in Table C2 support the plausibility of the continuity assumption. Only 3 of 13 mean difference tests show statistically significant differences when using two-way standard errors clustered at the ethnic group and country level, and such differences become statistically insignificant with spatial HAC standard errors [Conley, 1999] up to 50 km. Moreover, those differences are small in magnitude. Still, to address any concern that differences in characteristics between treatment and control groups may affect our results, we control for all those geographical, historical, and individual characteristics in the subsequent analysis.

5.2 Main results

OLS across countries. In Table 5.1, we display the OLS estimates of β^{GB} described in Equation (1) using the *extensive margin* measure of sexual prejudice and the sample of former British, French, or Portuguese colonies described in Subsection 3.2. Column (1) displays the results of a regression model that only includes country-level controls. In Columns (2) to (4), we include village-level geographical, historical, and individual-level controls, respectively, to the specification in Column (1). Column (5) replicates the specification in Column (4) using a conditional logit regression model and the *intensity margin* measure of sexual prejudice as the dependent variable. We report two-way standard errors clustered by country and ethnic location level between parenthesis.

Results in Table 5.1 reveal a direct and pronounced association between exposure to British colonial institutions and postcolonial levels of sexual prejudice. While not statistically significant at 10% in Column (1), $\hat{\beta}^{GB}$ is always positive and becomes statistically significant in Columns (2) to (4). In our preferred specification in Column (4), exposure to British colonial institutions is associated with an increase of 20 percentage points in sexual prejudice, nearly 25% of the outcome average on this sample. Relevant to the internal validity of the estimates from the OLS across countries, the magnitude of $\hat{\beta}^{GB}$ only increases when sequentially including control variables, suggesting that

⁷Our geographical controls in \mathbf{x}_v^G and historical controls in \mathbf{x}_v^H do not vary across individuals within the same village.

Table 5.1: OLS across countries: Former British colonies have higher sexual prejudice than the former French and Portuguese colonies in contemporary Africa after colonization

	OLS				Ordered logit
	(1)	(2)	(3)	(4)	(5)
British	0.102 (0.108)	0.146* (0.082)	0.198*** (0.069)	0.199*** (0.069)	0.985*** (0.368)
Country controls	Yes	Yes	Yes	Yes	Yes
Village controls (geographical)	No	Yes	Yes	Yes	Yes
Village controls (historical)	No	No	Yes	Yes	Yes
Individual controls	No	No	No	Yes	Yes
Outcome average	0.80	0.80	0.80	0.80	3.41
Observations	42,943	42,943	42,943	42,943	42,943
R ²	0.08	0.11	0.13	0.13	0.08
Clusters (country)	29	29	29	29	29
Clusters (ethnic groups)	379	379	379	379	379

Note: This table reports the effect of British colonial institutions on sexual prejudice in postcolonial societies conditional on controls at the country, village, and individual levels estimated by the **OLS across countries**. Column (1) displays the results of a regression model that only includes country-level controls. In Columns (2) to (4), we include village-level geographical, historical, and individual-level controls, respectively, to the specification in Column (1). Column (5) replicates the specification in Column (4) using a conditional logit regression model and the intensity margin measure of sexual prejudice as the dependent variable. We report two-way standard errors clustered by country and ethnic location level between parenthesis. The complete regression model in Column (4) is $Prejudice_{i,c,v} = \alpha + \beta^{GB} British_c + \gamma_1 x_c + \gamma_2 x_v + \gamma_3 x_i + \epsilon_i$, where i denotes a respondent, and v and c denote the current village and country of residence of respondent i , respectively. $Prejudice_{i,c,v}$ is the extensive margin measure of sexual prejudice of respondent i : it takes the value one if the individual would *dislike* or *strongly dislike* having a homosexual as a neighbour and 0 if the individual would like, strongly like or doesn't care. $British_c$ is an indicator taking value 1 when individual i lives in a country c with British colonial origin and zero otherwise. x_c , x_v , and x_i are vectors with country-level, village-level, and individual-level controls defined in Subsection 3.1. We report two-way standard errors clustered by country and ethnic location level between parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

OVBs caused by differences in characteristics at the village and individual levels are unlikely to explain the association between exposure to British colonial institutions and sexual prejudice. Finally, we also document a significant direct relationship between British colonial institutions and sexual prejudice in the logit model in Column (5), showing that results do not depend on specifying a binary outcome or linear probability model.

The positive and significant association between British colonial institutions and sexual prejudice in 5.1 is valid for either former Portuguese or French as a reference group. In Table C1 in Appendix C, we replicate Table 5.1 but presenting separate correlations for former Portuguese and French colonies while using former British colonies as the reference category. Columns (1) to (5) show a negative, significant, and robust association between French (Portuguese) colonial institutions and sexual prejudice, confirming that the direct association between British colonial origin and sexual prejudice does not depend on the choice of the reference group. However, the magnitude of

association is five times higher when using only former Portuguese colonies as the comparison group. We conjecture that the high fraction of the Muslim population in former French colonies in Northern and Western Africa explains such a difference in magnitudes. In this case, French institutions decriminalizing consensual same-sex acts may increase sexual prejudice by creating a cultural backlash against colonial laws that contradict pre-existing social norms.

Geo-RDD across countries. In Table 5.2, we display the estimates from the Geo-RDD across countries described in Equation (3) using the *extensive margin* measure of sexual prejudice defined in Subsection 3.1 and the Southern and Eastern Africa sample described in Subsection 3.2. Moreover, we report two-way standard errors clustered by country and ethnic location level between parenthesis and spatial HAC standard errors [Conley, 1999] up to 50 km between square brackets. Column (1) of Panel A in Table 5.2 shows estimates of β^{GB} in a regression model without RD-polynomial and controls. Respectively, Columns (2) to (6) of Panel A include an RD-polynomial on the distance to the national boundary, village-level geographical controls, village-level historical controls, individual-level controls, and ethnic location fixed effects. Panel B replicates Panel A but includes a linear polynomial on latitude and longitude instead of the distance to the national boundary.

Results in Table 5.2 reveal that British colonial institutions caused a pronounced increase in sexual prejudice in contemporary Africa. In Columns (1) to (6) of Panels A, the effect of British colonial institutions on sexual prejudice is significant at 1% according to both types of standard errors. The results in Columns (1) to (6) of Panel B replicate the patterns of Panel A, showing that estimates do not depend on the presence or the specification of the RD-polynomial. In our favourite specification in Column (4) of Panel A, exposure to British colonial institutions causes an increase in sexual prejudice of more than 42 percentage points, around 52.5% of the outcome average in this sample. Relevant to the internal validity of the estimates from the Geo-RDD across countries, the magnitude of $\hat{\beta}^{GB}$ remain stable when sequentially including control variables and ethnic location fixed effects, suggesting that OVBs caused by differences in characteristics across villages and ethnic locations are unlikely to explain the causal effect of British colonial institutions on sexual prejudice.

To increase external validity of the results obtained in the Geo-RDD across countries, we use the only available data of a similar geographic boundary for which there is available data on attitudes towards homosexuals: Guyana and Suriname. Using municipal level data from Afrobarometer, we perform a similar analysis to the one in

Table 5.2: Geo-RDD across countries: Exposure to British colonial institutions causes a substantial increase in sexual prejudice after colonization.

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Linear Polynomial in Distance to national boundary</i>						
British	0.415 (0.058) ^{***} [0.033] ^{***}	0.446 (0.038) ^{***} [0.047] ^{***}	0.420 (0.032) ^{***} [0.048] ^{***}	0.424 (0.040) ^{***} [0.050] ^{***}	0.423 (0.040) ^{***} [0.049] ^{***}	0.419 (0.021) ^{***} [0.035] ^{***}
R ²	0.15	0.17	0.20	0.20	0.21	0.25
<i>Panel B: Linear Polynomial in Latitude and Longitude</i>						
British	0.415 (0.058) ^{***} [0.033] ^{***}	0.395 (0.021) ^{***} [0.034] ^{***}	0.405 (0.032) ^{***} [0.031] ^{***}	0.406 (0.027) ^{***} [0.024] ^{***}	0.404 (0.025) ^{***} [0.024] ^{***}	0.439 (0.021) ^{***} [0.026] ^{***}
R ²	0.15	0.19	0.19	0.21	0.21	0.25
RD polynomial	No	Yes	Yes	Yes	Yes	Yes
Village controls (geographical)	No	No	Yes	Yes	Yes	Yes
Village controls (historical)	No	No	No	Yes	Yes	Yes
Individual controls	No	No	No	No	Yes	Yes
Ethnic location FE	No	No	No	No	No	Yes
Outcome average	0.80	0.80	0.80	0.80	0.80	0.80
Observations	4,968	4,968	4,968	4,968	4,968	4,968
Clusters (countries)	7	7	7	7	7	7
Clusters (ethnic locations)	31	31	31	31	31	31

Note: This table displays the estimates from the Geo-RDD across countries described in Equation (3) using the *extensive margin* measure of sexual prejudice defined in Subsection 3.1 and the Southern and Eastern African sample described in Subsection 3.2. Our sample includes respondents in villages in ethnic locations split between one of the six former British colonies in the treatment group (South Africa, Swaziland, Zimbabwe, Zambia, Malawi, and Tanzania) and the former Portuguese colony in the control group (Mozambique). Column (1) shows estimates from a regression model without RD-polynomial and controls. Respectively, Columns (2) to (6) include RD-polynomial, village-level geographical controls, village-level historical controls, individual-level controls, and ethnic location fixed effects. In our favourite specification in Column (5), we estimate the regression model $Prejudice_{i,c,v} = \alpha + \beta^{GB} British_c + f_v + \epsilon_{i,c,v}$, where i denotes a respondent, and v and c denote the current village and country of residence of respondent i , respectively. $Prejudice_{i,c,v}$ is the extensive margin measure of sexual prejudice of respondent i : it takes the value one if the individual would *dislike* or *strongly dislike* having a homosexual as a neighbour and 0 if the individual would like, strongly like or doesn't care. $British_c$ is an indicator taking value 1 when individual i lives in a country c with British colonial origin and zero otherwise. \mathbf{x}_c , \mathbf{x}_v , and \mathbf{x}_i are vectors with country-level, village-level, and individual-level controls defined in Subsection 3.1. The regression model in Column (6) includes $\alpha_{e(v)}$ capturing ethnic location fixed effects. $e(v)$ denotes the ethnic location of respondent i , assigned according to the polygon of the [Murdock \[1959\]](#) map of ethnic borders where the village v locates. Panel A shows specifications with an RD-polynomial on the distance to the national boundary $f_v = f(Distance_v)$. Panel B replicates Panel A using a linear polynomial on latitude and longitude $f_v = f(Lat_v, Long_v)$ instead of the distance to the national boundary. Lat_v and $Long_v$ are the latitude and the longitude of the village v . We report two-way standard errors clustered by country and ethnic location level between parenthesis and spatial HAC standard errors [[Conley, 1999](#)] up to 50 km between square brackets. ***p<0.01, **p<0.05, *p<0.10.

Table 5.2. Though estimates are less precise, the same pattern holds: sexual prejudice is higher in the British side of the border, which confirms the results found are not a particular feature for the case of Southeast African countries.

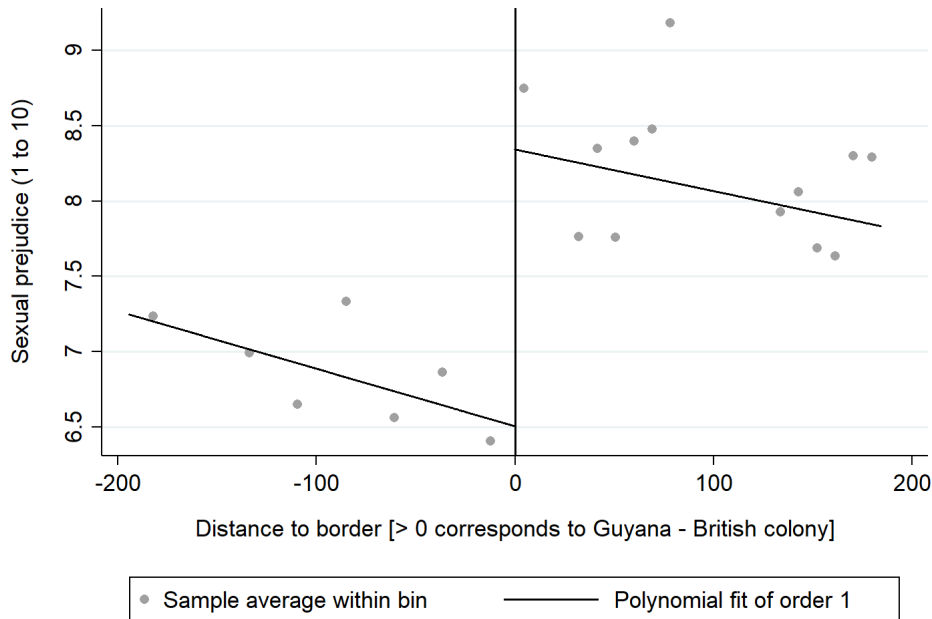


Figure 1: Geo-RDD across countries - External validity: Exposure to British colonial institutions causes a substantial increase in sexual prejudice after colonization

6 Mechanisms and Falsification

Naturally, there are some reasonable hypotheses unrelated to the existence, enforcement, and persistence of sodomy laws in former British colonies that can explain a negative and significant $\hat{\beta}^{GB}$. In this section, we test and discard three of them, and provide suggestive evidence on the most plausible hypothesis that could drive the effects found: the persistence after the colonial period of the laws implanted by British colonizers.

6.1 Socioeconomic and religious hypotheses

Several hypotheses related to the historical context at the time of colonization could be reasonable explanations for the observed increase in contemporaneous sexual prejudice. First, sexual prejudice might be higher in former British colonies if their institutions led to lower income and worse educational achievement after colonization. Second, there may be more intense missionary activity in former British colonies, causing more natives to convert from native religious to Christian affiliations that condemn homosexuality. Third, the prevalence of protestant missionaries and missionary schools

transmitted stricter religious beliefs in former British colonies that persisted after colonization.

To investigate whether any of these hypotheses receive support from the data, we implement a mechanism analysis to test whether changes in educational achievement, income, religious affiliation, and local exposure to missionary activity caused by British colonial institutions explain their effects on sexual prejudice. To implement such a mechanism analysis, we compare the magnitude of $\hat{\beta}^{GB}$ in specifications with and without controls plausibly affected by British colonial institutions.

Table 6.1 shows the results of our simple mechanism analysis. Columns (1) to (4) replicate the specification of the OLS across countries with the complete set of exogenous controls and include one set of endogenous variables (respectively, education categories FEs, income category FEs, religious affiliation FEs, and local exposure to Christian missions). Columns (5) to (8) mirror the specifications in Columns (1) to (4) using the specification of the Geo-RDD across countries with the complete set of exogenous controls.

The results in Table 6.1 tell us that none of the alternative mechanism hypotheses discussed above receives support from the data. More specifically, across our two different research methods, none of the four sets of endogenous controls included in the regression models substantially changes the magnitude of $\hat{\beta}^{GB}$ compared to the specifications with only exogenous controls, suggesting that they are not quantitatively relevant mechanisms of the effect of British colonial institutions on sexual prejudice.

Table 6.1: Mechanisms: Estimates show that neither variation in education, income and religious affiliations nor differential exposure to Missionary activity are likely to explain our results

	Cross-country				Geo-RDD across countries			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
British	0.206*** (0.069)	0.190*** (0.068)	0.202*** (0.070)	0.197*** (0.068)	0.419*** (0.037)	0.426*** (0.043)	0.431*** (0.039)	0.422*** (0.039)
Country controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Village controls (geographical)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Village controls (historical)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional controls	Education FE	Income FE	Religion FE	Missions	Education FE	Income FE	Religion FE	Missions
Outcome average	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Baseline coefficient [β_{GB}]	0.199	0.199	0.199	0.199	0.423	0.423	0.423	0.423
Observations	42,864	42,695	42,744	42,943	4,951	4,933	4,929	4,968
R ²	0.14	0.14	0.13	0.13	0.21	0.21	0.21	0.21

Note: This table replicates our main results including a set of controls (potentially endogenous to British colonization) regarding socioeconomic status and local exposure to Missionary activity. Columns (1) to (4) replicate the estimates in Table 5.1, and Columns (5) to (8) do so for estimates in Figure C1. Columns (1) to (4) report standard errors clustered at the country level, and columns (5) to (8), two-way standard errors clustered by country and ethnic location level, between parenthesis. ***p<0.01, **p<0.05, *p<0.10.

6.2 Differences in sub-national institutions

Given that changes in socioeconomic variables caused by British colonization are unlikely to explain its pronounced impact on contemporary sexual prejudice, we should evaluate the plausibility of competing hypotheses related to the persistence of institutional and cultural outcomes. We start by assessing the plausibility of the hypothesis that the impact of British colonialism on contemporary sexual prejudice occurs through the persistence of sub-national institutions instead of national institutions.

We do so by exploring the case of Cameroon, a country which current territory was split between the British and French Empires. Although former French colonies did not criminalize consensual same-sex acts during the colonial period, Cameroon re-criminalized such actions in 1967, 6 years after its independence and reunification. Given the convergence of national institutions after the reunification of Cameroon, the impact of British colonial institutions must not operate through the persistence of national institutions (e.g., penal codes criminalizing consensual same-sex acts) but through the persistence of different subnational institutions (e.g., local parties and churches and political parties adopting stronger anti-LGBT rhetoric).

Given this sub-national variation in exposure to colonial institutions, we estimate a within-country Geo-RDD using a sample of individuals in villages near the colonial

border between French and British Cameroon (as Figure B5 illustrates). More specifically, we estimate the regression model

$$Prejudice_{i,v} = \alpha + \beta^{GB} British_v + f(v) + \gamma_1 \mathbf{x}_i + \gamma_2 \mathbf{x}_v + \epsilon_{i,v} \quad (4)$$

where i , v , $f(v)$, \mathbf{x}_v , and \mathbf{x}_i have the same definition as in Equation (3). $British_v$ is an indicator variable equal to one for those villages located on the British side of the boundary and zero on the French side. β^{GB} in Equation (4) measures the effect of British colonial institutions on contemporary sexual prejudice for those villages near the French-British colonial boundary.⁸ A positive and significant β^{GB} is consistent with the hypothesis of persistence through subnational institutions. In contrast, a small and insignificant β^{GB} is consistent with the hypothesis of persistence through national institutions.

Figure 2 shows the results for this estimates: contemporaneous levels of sexual prejudice are similar across the two sides of the former border between the French and British Empires within Cameroon. Though existing data does not allow to estimate similar results for a different country, this suggests that differences in sub-national institutions are not likely to explain the observed effects in our cross-country samples.

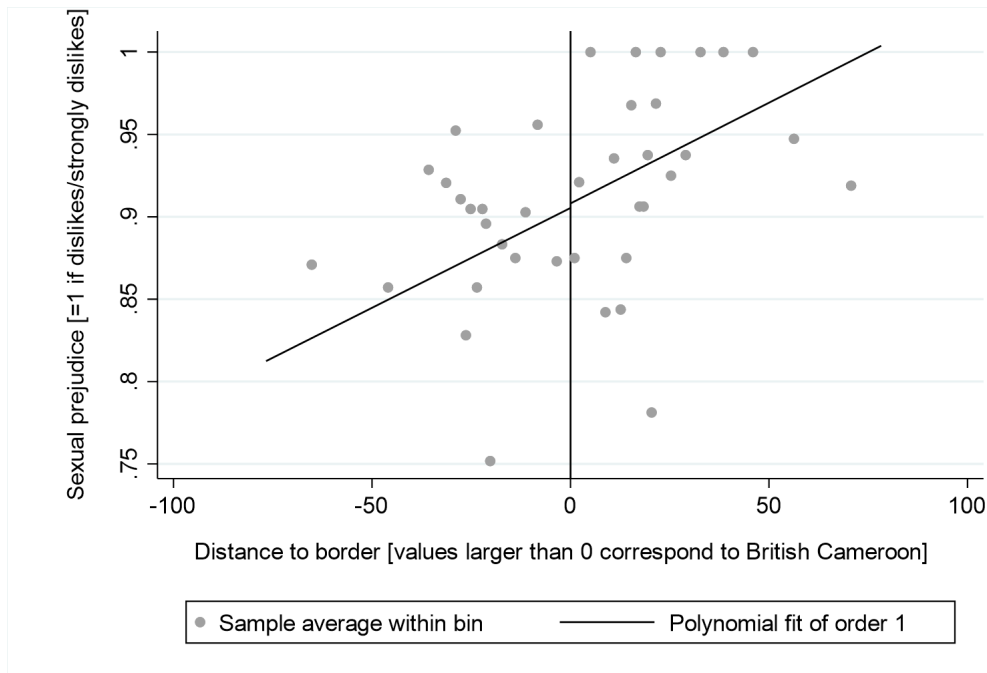
6.3 Generalized increase in intolerance

A plausible competing interpretation for our results is that instead of measuring the impact of British colonial institutions on sexual prejudice, a positive and significant $\hat{\beta}^{GB}$ captures a general increase in social intolerance in former British colonies that increase prejudice against all types of diverse groups, not only sexual minorities. Therefore, we take two steps to investigate whether such a reasonable competing interpretation receives support from the data. First, we estimate the effect of British colonial institutions on the measure of social prejudice that we defined in Section 3. Second, we compare the magnitude of $\hat{\beta}^{GB}$ in the specifications with and without social prejudice as a control variable.

Table 6.2 displays the results of the aforementioned falsification exercise in our two research methods (OLS across countries and Geo-RDD across countries). First, Columns

⁸Table C3 shows a balance check exercise for the sample used in the Within-country Geo-RDD with the same structure of the exercise in Table C2. Results support the plausibility of the continuity assumption: among the 13 mean difference tests, only the one associated to the dummy for respondents aged 25 to 34 shows a statistically significant difference, and such difference has small magnitude.

Figure 2: Mechanisms: Historical exposure to British colonial institutions is not associated to an increase in sexual prejudice of individuals exposed to the same national institutions after colonization



(1) and (3) replicate the main specification for our three research methods using social prejudice as a dependent variable.⁹ By doing so, we test if British colonial institutions are also related to higher levels of social prejudice. Second, Columns (2) and (4) replicate the main specifications using sexual prejudice as a dependent variable and including our measure of social prejudice as an additional control. In this way, we test if the relationship between British colonial institutions and sexual prejudice holds after controlling for the general level of social prejudice.

The results in Table 6.2 show that a generalized increase in several forms of prejudice caused by British colonial institutions is unlikely to explain their impact on sexual prejudice. Columns (1) and (3) reveal that British colonial institutions significantly *reduced* social prejudice and, not surprisingly, Columns (2) and (4) show that the magnitudes of $\hat{\beta}^{GB}$ compared to our favourite specifications in Column (4) of Table 5.1 and Column (5) of Table 5.2 remain very similar. Given these two patterns, it is highly improbable that a general increase in social prejudice in former British colonies is the mechanism explaining the positive and significant $\hat{\beta}^{GB}$.

⁹Such main specifications are those estimated in Column (4) of Table 5.1 and Column (5) of Table 5.2, respectively.

Table 6.2: Mechanisms: Estimates show that a general increase in prejudice in former British colonies is unlikely to explain our results

	OLS across countries		Geo-RDD across countries	
	(1) Social Prejudice	(2) Sexual Prejudice	(3) Social Prejudice	(4) Sexual Prejudice
British	-0.175 (0.237)	0.209** (0.079)	-1.299*** (0.160)	0.512*** (0.058)
Social Prejudice		0.048*** (0.008)		0.061* (0.026)
Country controls	Yes	Yes	Yes	Yes
Village controls (geographical)	Yes	Yes	Yes	Yes
Village controls (historical)	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes
Outcome average		0.80		0.80
Baseline coefficient $[\beta_{GB}]$		0.199		0.423
Observations	42,501	42,501	4,913	4,913
R ²	0.07	0.16	0.08	0.25

Note: This table displays a falsification exercise using an index of prejudice against other collectives (different ethnic groups, immigrants, different religious affiliation, people with HIV) as outcomes (Columns (1) and (3)) or control variables (Columns (2) and (4)). Columns (1) and (2) replicate the estimates in Table 5.1, and Columns (3) and (4) do so for estimates in Figure C1. Two-way standard errors clustered by country and ethnic location level between parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

6.4 Persistence of homophobic laws

This section is still work in progress. We shortly describe its first ingredients.

The remaining alternative explanation for the observed levels of sexual prejudice in former British colonies is that the increase in sexual prejudice could be motivated by the persistence of the laws implanted by British colonizers after the colonial period. This idea is in line with the *legitimacy model* [Flores and Barclay, 2016], which asserts that sustained exposure to a set of formal institutions results in the legitimation of the corresponding social attitudes.

As a first step to test this hypothesis, we conduct a simple mediation analysis using global cross-country data from the Gallup World Poll. First, we estimate the effect of British colonial institutions on contemporaneous levels of sexual prejudice, conditional on income per capita. Then, we estimate the effect of British colonization on the existence of contemporaneous laws criminalizing homosexuality. Third, we estimate the relationship between the contemporaneous existence of homophobic laws and the contemporaneous levels of sexual prejudice. Finally, we estimate again the effect of British colonial institutions on sexual prejudice, but this time controlling for the per-

sistence of laws criminalizing homosexuality.

Table 6.3 shows the results for this mediation exercise. Column (1) confirms the same relationship we found in previous sections for the African sample, but for the global sample. Column (2) shows that former British colonies are more likely to still have laws criminalizing homosexuality, as described by O’Mahoney and Han [2018]. In Column (3) we observe a high correlation between criminalization of same-sex relationships and sexual prejudice, as expected. Finally, and most importantly, Column (4) shows that persistence of laws criminalizing same-sex acts explains most of the pronounced association between British colonization and sexual prejudice.

Table 6.3: OLS across countries in the World Gallup Poll (WGP) sample:
The persistence of laws criminalizing same-sex acts explains most of the pronounced association between British colonization and sexual prejudice

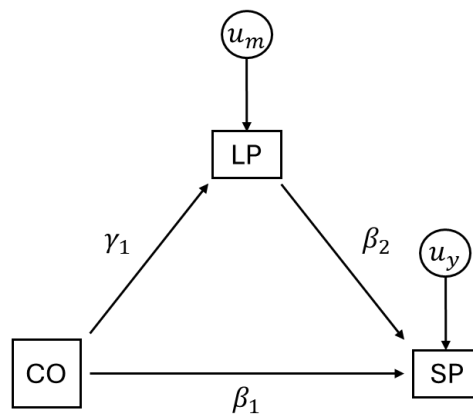
	(1)	(2)	(3)	(4)
	Sexual Prejudice	Criminalize	Sexual Prejudice	Sexual Prejudice
British	0.141 [0.041]***	0.653 [0.068]***		0.011 [0.040]
Criminalize			0.206 [0.033]***	0.199 [0.036]***
Observations	872	873	872	872
Num. of clusters	87	87	87	87
R-squared	0.514	0.454	0.589	0.589
Outcome average	0.647	0.385	0.385	0.647
Income per capita of 2000	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes

Note: This table displays the results of a simple mediation estimated by the OLS across countries using the World Gallup Poll (WGP) data. Our sample includes respondents in 872 nationally representative surveys in 87 former European colonies surveyed by the WGP between 2011 and 2023. All specifications include Income per capita (of 2000) as a control and Year FEs. Column (1) shows estimates from a regression model using $Prejudice_{c,t}$ as the outcome variable and $British_c$ as the treatment variable. $Prejudice_{c,t}$ is the measure of sexual prejudice of country c at year t : the percentage of respondents that respondent mentions *No* when asked: “Is the city or area where you live a good place or not a good place to live for gay or lesbian people?”. $British_c$ is an indicator taking value 1 when country c with British colonial origin and zero otherwise. Column (2) shows estimates from a regression model using $Criminalize_{c,t}$ as the outcome variable and $British_c$ as the treatment variable. $Criminalize_{c,t}$ is an indicator taking value 1 when country c has a law criminalizing consensual same-sex conduct at year t . Column (3) shows estimates from a regression model using $Prejudice_{c,t}$ as the outcome variable and $Criminalize_{c,t}$ as the treatment variable. Column (4) shows estimates from a regression model using $Prejudice_{c,t}$ as the outcome variable, $British_c$ as the treatment variable, and $Criminalize_{c,t}$ as the control variable. We report standard errors clustered at the country level between parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Though these results already suggest that the persistence of homophobic laws is the most likely mechanism to explain our results, we still cannot state this unequivocally. The main challenge we observe in the estimates of columns (3) and (4) is reverse

causality between the persistence of such laws and social attitudes. To solve this, we work to specify and estimate a recursive system of equations to quantify the extent to which the impact of British colonization on contemporary sexual prejudice operates through the persistence of those laws criminalizing consensual same-sex relationships. For that purpose, we will estimate a simultaneous equation system following [Bouchouicha et al. \[2024\]](#), using data from a global sample of countries obtained from the Gallup World Poll, to which we will incorporate additional information on law persistence and exogenous controls. The starting point of the analysis is illustrated in Figure 3.

Figure 3: DAGs analysis: basic empirical model



Note: This figure displays the basic model from which we start the DAGs analysis. CO, LP and SP refer to *colonial origin*, *law persistence* and *sexual prejudice*, respectively. The coefficients correspond to the underlying system of equations: $LP = \gamma_0 + CO\gamma_1 + X\gamma_2 + u_m$ and $SP = \beta_0 + CO\beta_1 + LP\beta_2 + X\gamma_3 + u_y$. X corresponds to a set of controls.

Conclusion

This paper provides the first causal account of the widely debated hypothesis that the British Empire promoted sexual prejudice in its former colonies. Across two different methodologies (OLS across countries, Geo-RDD across countries) and different settings, we find substantial effects of exposure to British colonial institutions on sexual prejudice in postcolonial societies, ranging from 10% to 50% of the outcome average. Preliminary analysis of mechanisms shows that alternative hypotheses, such as a generalized increase in prejudice, worse socioeconomic outcomes caused by British colonial institutions, or differences in sub-national institutions are unlikely to explain their effect on sexual prejudice. Additional analysis suggest that our results reflect not sim-

ply the impact of exposure to sodomy laws during colonization, but their persistence after independence.

Do our estimates have a reasonable degree of external validity? Apparently, yes. First, additional results for the global sample confirm our main results for the African sample. Second, individual case studies suggest it is possible to extrapolate the treatment effects from the African sample to other continents. For example, the former British colonies in the Caribe (e.g., Antigua and Barbuda, St. Kitts and Nevis, Jamaica) are among the countries with the highest sexual prejudice in the Americas, contrasting with the low sexual prejudice and decriminalization of same-sex acts in most former Spanish and Portuguese South American colonies (e.g., Brazil, Argentina, Chile) [Chaux et al., 2021]. Moreover, on a more micro scale, the case of the three Guianas makes a strong case for the consequences of British colonization. More precisely, in contrast to the French and Dutch Guianas, where homosexual acts became legal in the XIX century [O'Mahoney and Han, 2018], British Guiana is the last South American country where homosexual acts remain illegal [ILGA, 2012], and, unsurprisingly, it has the lowest acceptance of homosexuality in South America today [Chaux et al., 2021]. Our analysis for the existing data in the region confirm such ideas.

Which implications can we derive from our findings? First, given the limited probability of backlash in settings with low tolerance toward sexual minorities, an immediate policy recommendation for those governments interested in promoting tolerance toward sexual minorities is repealing the colonial laws criminalizing same-sex acts. Second, more broadly, our results showcase the social costs of criminalizing behaviours such as drug consumption and prostitution, suggesting that reforming penal codes to decriminalize such behaviours could decrease prejudice against those practising them.

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Appendix

A Regulation of consensual same-sex acts in former British in Africa

Table A1: Regulation of consensual same-sex acts in colonial Africa: Former UK colonies systematically criminalized consensual homosexual conduct

Country	Legal base	Sanction	Date of adoption
Botswana	British Common Law		1885
	Queensland Criminal Code	Up to 7 years of imprisonment with hard labour	1964
Gambia	Indian Penal Code	Up to 10 years of imprisonment or life imprisonment	
	Queensland Criminal Code	Up to 14 years of imprisonment with hard labour	1934
Ghana	Wright's Jamaican Penal Code	Up to 3 years imprisonment	1892
Kenya	Indian Penal Code	Up to 10 years of imprisonment or life imprisonment	1897
	Queensland Criminal Code	Up to 14 years of imprisonment with hard labour	1930
Lesotho	Criminal Law and Procedure Act		1938
Malawi	Indian Penal Code	Up to 10 years imprisonment or life imprisonment	1925
	Queensland Criminal Code	Up to 14 years of imprisonment with hard labour	1930
Namibia	Roman-Dutch Common Law	Up to a capital sentence	
Nigeria	Queensland Criminal Code	Up to 14 years of imprisonment with hard labour	1914
Sierra Leone	British Common Law	From 10 years to life imprisonment with servitude	1861
South Africa	Roman-Dutch Common Law	Up to a capital sentence	
Sudan	Indian Penal Code	No punishment for consensual same-sex acts	1899
Swaziland	British Common Law	From 10 years to life imprisonment with servitude	1906
	Criminal Law and Procedure Act		1939
Tanzania	Indian Penal Code	Up to 10 years of imprisonment or life imprisonment	1920
	Queensland Criminal Code	Up to 14 years of imprisonment with hard labour	1930
Uganda	Indian Penal Code	Up to 10 years of imprisonment or life imprisonment	1902
	Queensland Criminal Code	Up to 14 years of imprisonment with hard labour	1930
Zambia	Queensland Criminal Code	Up to 14 years of imprisonment with hard labour	1930
Zimbabwe	Roman-Dutch Common Law	Up to a capital sentence	1889

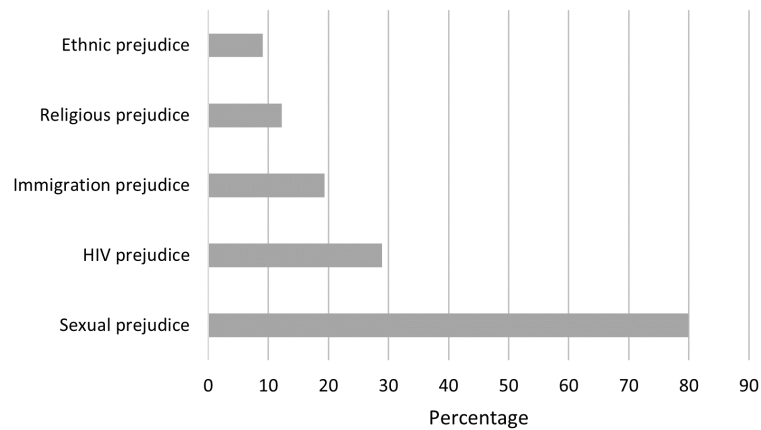
Notes: This table shows the legal bases (e.g., penal codes, legal origin) used to regulate consensual same-sex acts in colonial Africa. Respectively, Columns (2), (3), and (4) list the legal base, the prescribed sanction for consensual same-sex acts, and the date of adoption of the regulation in each country listed in Column (1). Elaborated by the authors using information from [O'Mahoney and Han \[2018\]](#), [Han and O'Mahoney \[2014\]](#), and [Long \[2003\]](#).

B Data: Additional Tables and Figures

Table B1: Description of variables used in the analysis

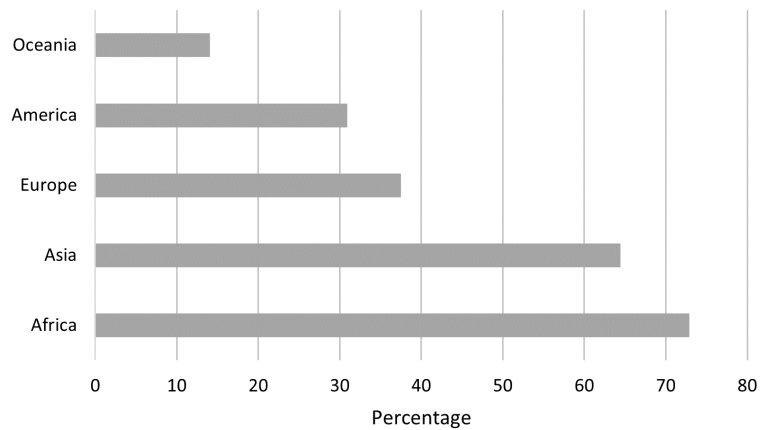
Variable	Description	Source
Panel A: Outcomes and treatment		
Sexual prejudice [0 to 4]	Increasing discrete measure of sexual prejudice taking values from 0 to 4 if the respondent would <i>strongly like</i> , <i>somewhat like</i> , <i>not care</i> , <i>somewhat dislike</i> or <i>strongly dislike</i> having homosexuals as neighbours, respectively.	Afrobarometer
Sexual prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having homosexuals as neighbours, 0 otherwise.	Afrobarometer
Religious prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having people of different religion as neighbours, 0 otherwise.	Afrobarometer
Ethnic prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having people of different ethnicity as neighbours, 0 otherwise.	Afrobarometer
HIV prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having people with HIV as neighbours, 0 otherwise.	Afrobarometer
Immigration prejudice [Dummy]	Dummy taking value one if the respondent would <i>somewhat dislike</i> or <i>strongly dislike</i> having immigrants or foreign workers as neighbours, 0 otherwise.	Afrobarometer
British Colony	Dummy taking value one if respondent currently lives in a country that formerly was a British Colony.	La Porta et al. [2008]
French Colony	Dummy taking value one if respondent currently lives in a country that formerly was a French Colony.	La Porta et al. [2008]
Portuguese Colony	Dummy taking value one if respondent currently lives in a country that formerly was a Portuguese Colony.	La Porta et al. [2008]
Panel B: Country level controls		
Region [West Africa]	Dummy taking value one if respondent currently lives in West Africa.	Afrobarometer
Region [East Africa]	Dummy taking value one if respondent currently lives in East Africa.	Afrobarometer
Region [South Africa]	Dummy taking value one if respondent currently lives in South Africa.	Afrobarometer
Region [North Africa]	Dummy taking value one if respondent currently lives in North Africa.	Afrobarometer
Region [Central Africa]	Dummy taking value one if respondent currently lives in Central Africa.	Afrobarometer
Former German Colony	Dummy taking value one if respondent currently lives in a country that formerly was a German Colony.	La Porta et al. [2008]
Panel C: Geographical controls (village level)		
Latitude	Latitude at the current location of the respondent.	Afrobarometer
Longitude	Longitude at the current location of the respondent.	Afrobarometer
Temperature	Mean temperature (in degrees Celsius) in the period from 2011 to 2020 from a grid at 0.5° resolution, matched to the current location of the respondent.	Climatic Research Unit (TS v. 4.07)
Elevation	Elevation (in meters) from a grid at 1km resolution, computed as the mean from the 5 by 5 cells centered in the current location of the respondent.	USGS (GTOPO30)
Slope	Slope (in degrees) computed from a grid at 1km resolution, matched to the current location of the respondent.	USGS (GTOPO30)
Distance to coast	Minimum distance (in kilometers) from the current location of the respondent to the coastline.	GSHHG
Distance to diamond mines	Distance (in kilometers) from the current location of the respondent to the closest diamond deposit.	DIADATA - Peace Research Institute Oslo
Panel D: Historical controls (village/ethnic level)		
Distance to Saharan trade routes	Minimum distance to the routes of the Saharan trade from the centroid of the land historically inhabited by the ethnic group in which the current location is located.	Nunn and Wantchekon [2011] Originally, Murdock [1959] and Century Company [1911]
Distance to colonial railways	Distance (in kilometers) from the current location to the closest colonial railway.	Nunn and Wantchekon [2011] Originally, Oliver [2000]
Distance to national border	Distance (in kilometers) from the current location of the respondent to the closest national border.	United Nations
Panel E: Individual controls		
Sex	Dummy taking value one if respondent is a female.	Afrobarometer
Age [18 to 24]	Dummy taking value on if respondent is 18 to 24 years old.	Afrobarometer
Age [25 to 34]	Dummy taking value on if respondent is 25 to 34 years old.	Afrobarometer
Age [35 to 44]	Dummy taking value on if respondent is 35 to 44 years old.	Afrobarometer
Age [45 to 54]	Dummy taking value on if respondent is 45 to 54 years old.	Afrobarometer
Age [+55]	Dummy taking value on if respondent is 55 years old, or older.	Afrobarometer

Figure B1: Share of African population with different forms of prejudice in our sample: sexual prejudice, compared to other types, is a salient phenomenon in contemporary Africa



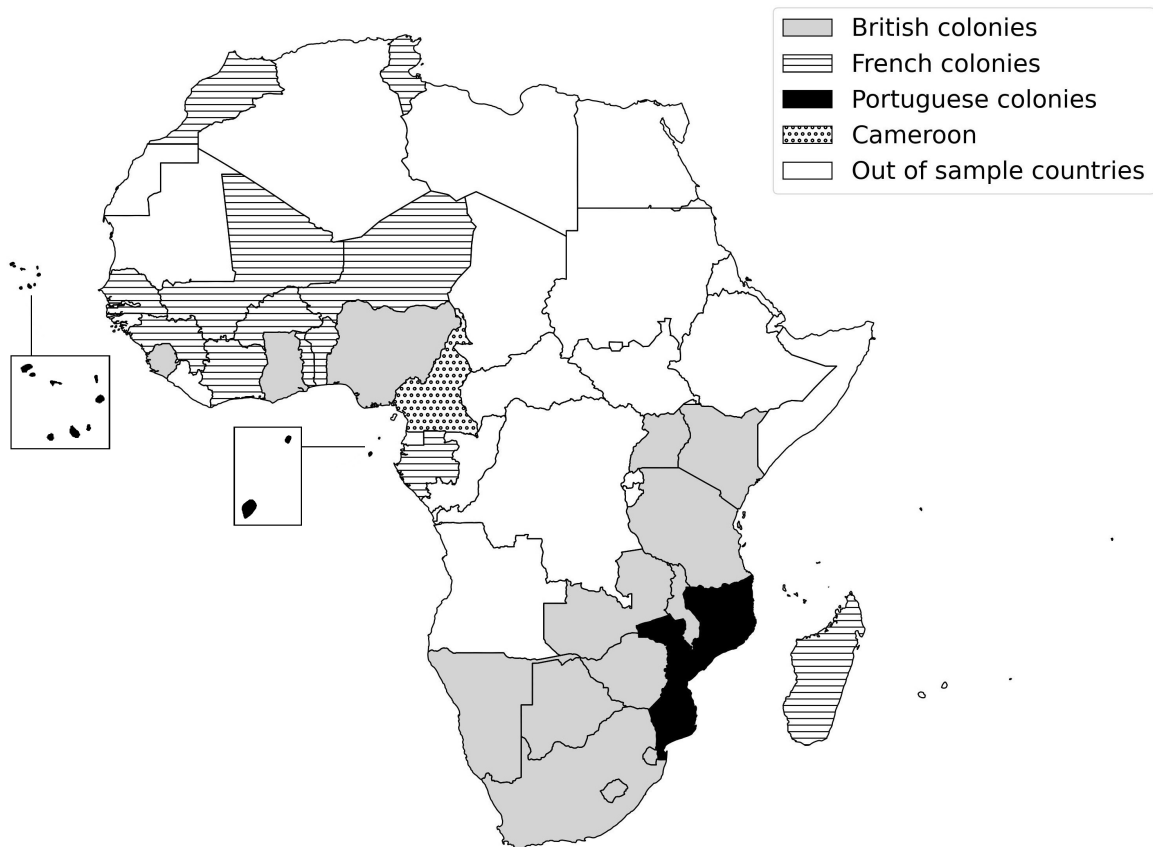
Notes: This figure displays the percentage of people that shows prejudice against a certain group for countries in the Afrobarometer Wave 6 (ABW6) in our sample. Information is obtained from the following question: *For each of the following types of people, please tell us whether you would like to have people from this group [...] as neighbours, dislike it, or do not care.* Possible answers are *Strongly dislike; Somewhat dislike; Would not care; Somewhat like; Strongly like.* The question is asked for 5 different groups: *Homosexuals; People of a different religion; People of a different ethnicity; People with HIV; Immigrants or foreign workers.* We consider that an individual has prejudice towards a group if she answers *Strongly dislike* or *Somewhat dislike.*

Figure B2: Share of population that shows sexual prejudice across continents: contemporary Africa, compared to other continents, exhibits high levels of sexual prejudice



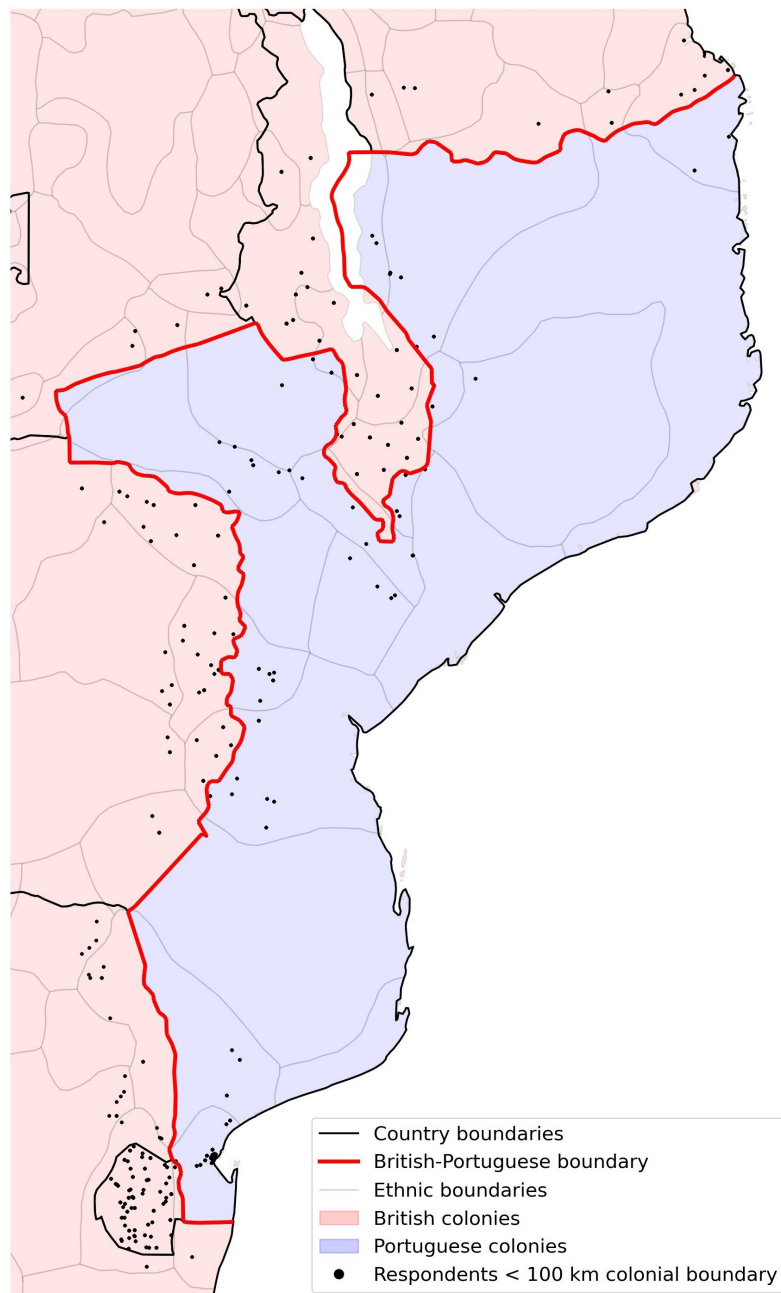
Notes: This figure displays the percentage of people that shows sexual prejudice across continents. Information is obtained from Questions 36 to 44 in the 6th wave of the *World Value Survey*: the interviewer shows a list of 9 groups of people and asks the respondent to choose which of those she would not like to have as a neighbor. One of the groups listed is "Homosexuals" (item 40). We consider that an individual shows sexual prejudice if she chooses homosexuals among the groups she would not like to have as a neighbor.

Figure B3: Countries included in the Afrobarometer Wave 6 according to their colonial origin



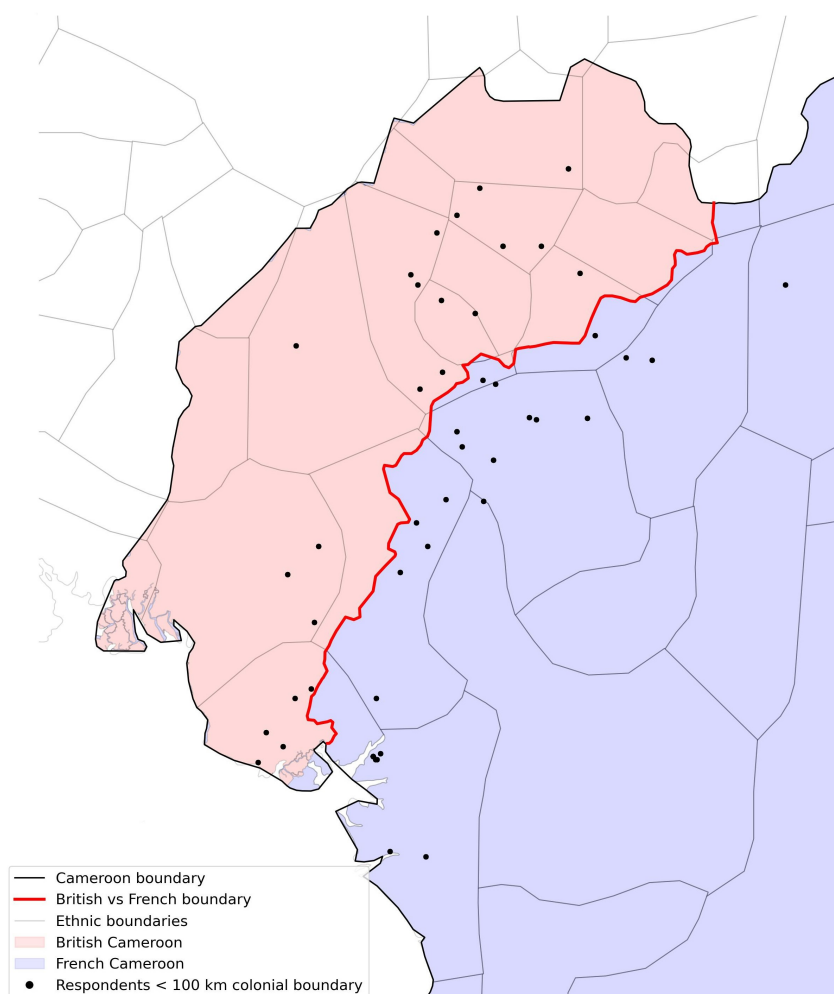
Notes: This figure shows a map with all countries in the Afrobarometer Wave 6 (ABW6) in our sample, in different colours according to their colonial origin. We only display the colonizer of the countries that asked Q89C (i.e., how much they would dislike having homosexuals as neighbours) in the ABW6. We show former colonies of the UK in grey (Botswana, Ghana, Kenya, Lesotho, Malawi, Namibia, Nigeria, Sierra Leone, South Africa, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe), France with horizontal lines pattern (Benin, Burkina Faso, Cote d'Ivoire, Gabon, Guinea, Madagascar, Mali, Morocco, Niger, Senegal, Togo, Tunisia), and Portugal in black (Cabo Verde, Mozambique, São Tomé and Príncipe). We exclude countries with two distinct colonizers (Cameroon and Mauritius) from our cross-country sample to avoid mixing cross-country and within-country variation in exposure to colonial institutions. The picture highlights that, in the Southern & Eastern African countries in our sample, the variation in exposure to different colonial institutions lies at the boundary between six former British colonies (South Africa, Swaziland, Zimbabwe, Zambia, Malawi, and Tanzania) and one former Portuguese colony (Mozambique).

Figure B4: Afrobarometer clusters included in the sample used in the Geo-RDD across countries



Notes: This map displays the Southern & Eastern African countries in our sample exposed to either British colonial institutions (South Africa, Swaziland, Zimbabwe, Zambia, Malawi, and Tanzania) or Portuguese colonial institutions (Mozambique). We generate the map in two steps. First, we superimpose the Portuguese-British colonial boundary (in red) onto the polygons of the [Murdock \[1959\]](#) map of ethnic boundaries (in light grey) and onto the rest of national boundaries (in black). Then, we plot dots with the location of respondents from Afrobarometer Wave 6 (AB-W6) in the sample used to estimate the Geo-RDD across countries - i.e., those villages within 100km of the former Portuguese-British colonial boundary.

Figure B5: Afrobarometer villages included in the sample used in the Within-country Geo-RDD



Notes: This map displays the region of Cameroon that was split into a British and a French colony before the independence. We generate the map in two steps. First, we superimpose the former colonial boundary (in red) onto the polygons of the [Murdock \[1959\]](#) map of ethnic boundaries (in light grey). Then, we plot dots with the location of respondents from Afrobarometer Wave 6 (AB-W6) in the sample used to estimate the Within-country RDD - i.e., the subsample of villages within 100km of the former French-British colonial boundary.

C Additional results: Additional Tables and Figures

Table C1: OLS across countries: Former French and Portuguese colonies have lower sexual prejudice than the former British colonies after colonization

	OLS				Ordered Logit
	(1)	(2)	(3)	(4)	(5)
French	0.006 (0.065)	-0.031 (0.039)	-0.075** (0.033)	-0.076** (0.033)	-0.220 (0.259)
Portuguese	-0.331*** (0.081)	-0.412*** (0.045)	-0.425*** (0.040)	-0.425*** (0.040)	-1.779*** (0.298)
Country controls	Yes	Yes	Yes	Yes	Yes
Village controls (geographical)	No	Yes	Yes	Yes	Yes
Village controls (historical)	No	No	Yes	Yes	Yes
Individual controls	No	No	No	Yes	Yes
Outcome average	0.80	0.80	0.80	0.80	3.41
Observations	42,943	42,943	42,943	42,943	42,943
R ²	0.11	0.15	0.16	0.16	0.09
Clusters (country)	29	29	29	29	29
Clusters (ethnic groups)	379	379	379	379	379

Note: This table reports the effect of different colonial origins (French, Portuguese and British) on sexual prejudice on controls at the country, village, and individual levels estimated by the **OLS across countries**. We use former British colonies as the omitted category to separately test whether former French and Portuguese colonies have a lower sexual prejudice than formal British colonies using a single regression model and avoiding linear combinations of the coefficients. Column (1) displays the results of a regression model that only includes country-level controls. In Columns (2) to (4), we include village-level geographical, historical, and individual-level controls, respectively, to the specification in Column (1). Column (5) replicates the specification in Column (4) using a conditional logit regression model and the intensity margin measure of sexual prejudice as the dependent variable. We report two-way standard errors clustered by country and ethnic location level between parenthesis. The complete regression model in Column (4) is $Prejudice_{i,c,v} = \alpha + \beta^{FR} French_c + \beta^{PT} Portuguese_c + \gamma_1 x_c + \gamma_2 x_v + \gamma_3 x_i + \epsilon_i$, where i denotes a respondent, and v and c denote the current village and country of residence of respondent i , respectively. $Prejudice_{i,c,v}$ is the extensive margin measure of sexual prejudice of respondent i : it takes the value one if the individual would *dislike* or *strongly dislike* having a homosexual as a neighbour and 0 if the individual would like, strongly like or doesn't care. Respectively, $French_c$ and $Portuguese_c$ are indicators taking value 1 when individual i lives in a country c with French and Portuguese colonial origin. x_c , x_v , and x_i are vectors with country-level, village-level, and individual-level controls defined in Subsection 3.1. We report two-way standard errors clustered by country and ethnic location level between parenthesis. ***p<0.01, **p<0.05, *p<0.10.

Table C2: Balance-check: treatment and control villages in the sample used to estimate the Geo-RDD across countries have similar demographic, geographic, and historical characteristics

	Obs	Sample Mean	Diff of Means	RDD Coef	SEs of RDD Coef
<i>Panel A: Individual characteristics</i>					
Sex [Female=1]	4,968	0.51	-0.063	-0.033	(0.008)*** [0.033]
Age [18 to 24]	4,968	0.25	-0.031	0.0084	(0.038) [0.038]
Age [25 to 34]	4,968	0.32	0.0045	-0.040	(0.019)* [0.029]
Age [35 to 44]	4,968	0.19	-0.0011	0.015	(0.022) [0.033]
Age [45 to 54]	4,968	0.11	0.011	-0.019	(0.015) [0.028]
Age [55+]	4,968	0.13	0.017	0.035	(0.023) [0.033]
<i>Panel B: Geographic characteristics</i>					
Temperature (degrees Celsius)	653	22.3	-1.74	0.88	(0.364)* [0.694]
Elevation (meters)	653	758.7	387.0	-94.2	(110.485) [187.481]
Slope (°)	653	2.04	0.92	0.84	(1.078) [0.922]
Distance coast (kms.)	653	310.7	132.4	52.8	(54.678) [87.786]
Distance diamond mines (kms.)	653	232.1	3.70	36.2	(41.058) [61.698]
<i>Panel C: Historical characteristics</i>					
Distance Saharan trade routes (kms.)	653	3965.0	-111.6	-228.0	(157.021) [240.454]
Distance colonial railways (kms.)	653	145.6	42.9	64.5	(35.201) [59.270]

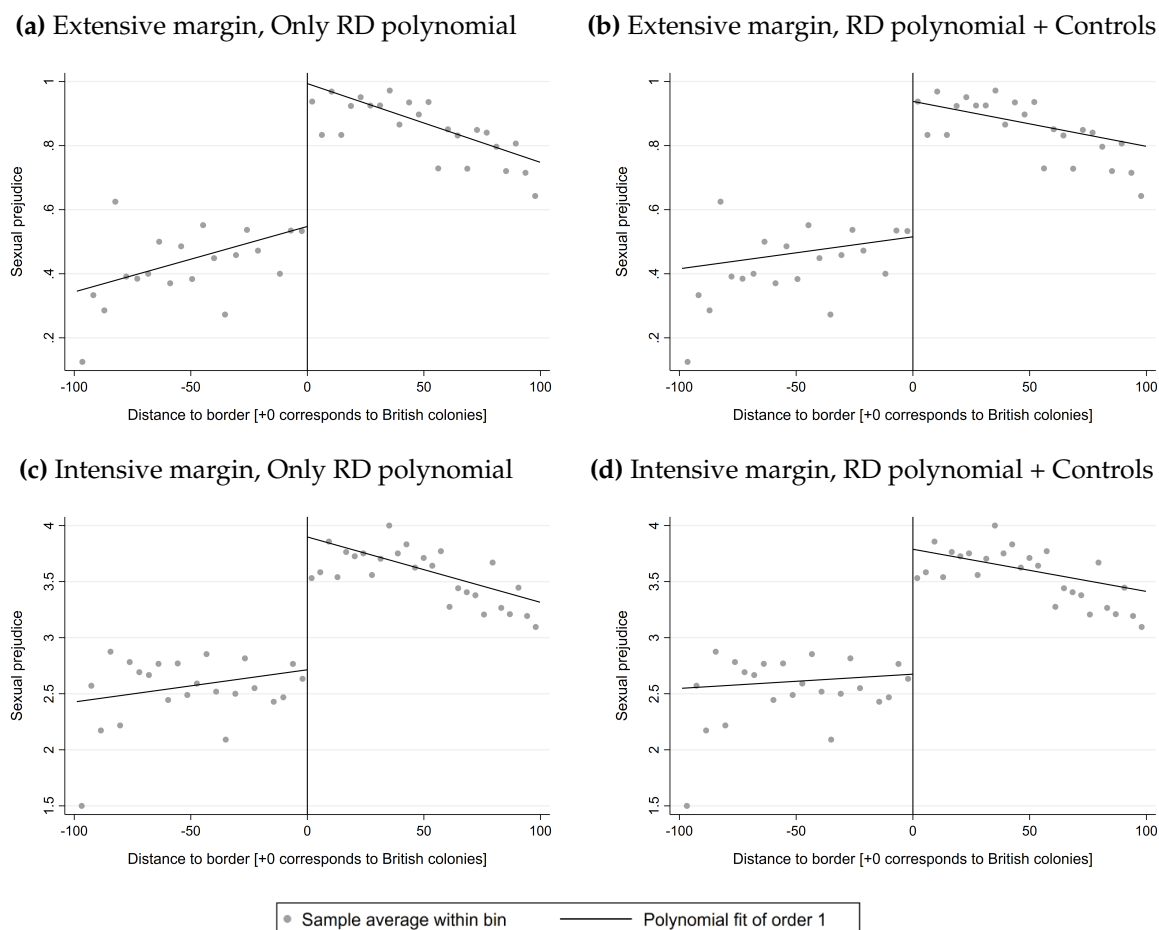
Note: This table shows balance check statistics of our baseline controls at the village level for the sample used to estimate the Geo-RDD across countries. Respectively, the second and third columns display the sample size N and the sample mean \bar{x} of each baseline control x described in the first column. The fourth column reports the (unconditional) difference of means between our control and treatment groups $\bar{x}(\text{British}_c = 1) - \bar{x}(\text{British}_c = 0)$ of the baseline control x . The fifth column shows the (conditional) difference of means $\hat{\beta}_x^{GB}$ estimated by the Geo-RDD model described by Equation (3) in Section 4 using the baseline control x as an outcome variable. We use the specification with the RD-polynomial on the distance to the national boundary $f_v = f(\text{Distance}_v)$. The sixth column reports the standard errors (SEs) of $\hat{\beta}_x^{GB}$: two-way SEs clustered by country and ethnic location between parenthesis and spatial HAC SEs [Conley, 1999] up to 50 km between square brackets. In Panel A, we report balance-check statistics for the individual-level controls in \mathbf{x}_i estimated using an individual-level regression model. Respectively, Panels B and C report balance check statistics for the village-level geographical and historical controls in $\mathbf{x}_v = (\mathbf{x}_v^G, \mathbf{x}_v^H)$ estimated using a village-level regression model. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table C3: Balance-check: treatment and control villages in the sample used to estimate the Within-country Geo-RDD have similar demographic, geographic, and historical characteristics

	Obs	Sample Mean	Diff of Means	RDD Coef	SEs of RDD Coef
<i>Panel A: Individual characteristics</i>					
Sex [Female=1]	485	0.49	0.0044	0.010	(0.091) [0.007]
Age [18 to 24]	485	0.22	0.022	-0.082	(0.078) [0.077]
Age [25 to 34]	485	0.37	0.0076	0.13	(0.088) [0.060]**
Age [35 to 44]	485	0.21	0.0014	-0.021	(0.067) [0.076]
Age [45 to 54]	485	0.11	-0.029	-0.042	(0.062) [0.060]
Age [55+]	485	0.082	-0.0021	0.019	(0.053) [0.037]
<i>Panel B: Geographic characteristics</i>					
Temperature (degrees Celsius)	62	23.7	-2.20	-1.08	(1.069) [1.469]
Elevation (meters)	62	792.0	524.2	158.8	(348.240) [374.641]
Slope (°)	62	1.81	1.72	0.93	(1.005) [1.106]
Distance coast (kms.)	62	108.7	69.6	-29.8	(38.035) [44.413]
Distance diamond mines (kms.)	62	457.7	54.0	-13.3	(14.803) [19.978]
<i>Panel C: Historical characteristics</i>					
Distance Saharan trade routes (kms.)	62	805.4	-128.2	-4.24	(37.443) [44.981]
Distance colonial railways (kms.)	62	605.5	-80.9	14.3	(18.189) [24.693]

Note: This table shows balance check statistics of our baseline controls at the village level for the sample used to estimate the Within-country Geo-RDD. Respectively, the second and third columns display the sample size N and the sample mean \bar{x} of each baseline control x described in the first column. The fourth column reports the (unconditional) difference of means between our control and treatment groups $\bar{x}(\text{British}_c = 1) - \bar{x}(\text{British}_c = 0)$ of the baseline control x . The fifth column shows the (conditional) difference of means $\hat{\beta}_x^{GB}$ estimated by the Geo-RDD model described by Equation (3) in Section 4 using the baseline control x as an outcome variable. We use the specification with the RD-polynomial on the distance to the national boundary $f_v = f(\text{Distance}_v)$. The sixth column reports the standard errors (SEs) of $\hat{\beta}_x^{GB}$; SEs clustered at the village level between parenthesis and spatial HAC SEs [Conley, 1999] up to 50 km between square brackets. In Panel A, we report balance-check statistics for the individual-level controls in \mathbf{x}_i estimated using an individual-level regression model. Respectively, Panels B and C report balance check statistics for the village-level geographical and historical controls in $\mathbf{x}_v = (\mathbf{x}_v^G, \mathbf{x}_v^H)$ estimated using a village-level regression model. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Figure C1: RD plots for the Geo-RDD across countries: results across different outcome measures and specifications show that sexual prejudice is higher in the British side of colonial borders



Note: This figure displays the RD plots from the estimations of the Geo-RDD across countries described in Equation (3) using the Southern and Eastern African sample described in Subsection 3.2. Our sample includes respondents in villages in ethnic locations split between one of the six former British colonies in the treatment group (South Africa, Swaziland, Zimbabwe, Zambia, Malawi, and Tanzania) and the former Portuguese colony in the control group (Mozambique). We provide results using different definitions of the outcome variable and different regression model specifications. Regarding the definition of the outcome variable, subfigures (a) and (b) show estimates using the *extensive margin* measure of sexual prejudice, and subfigures (c) and (d) show estimates using the *intensive margin* measure of sexual prejudice, both defined in Subsection 3.1. Regarding the specification of the regression model, in subfigures (a) and (c) we show estimates from the regression model $Prejudice_{i,c,v} = \alpha + \beta^{GB} British_c + f(v) + \epsilon_{i,c,v}$, which includes only the RD polynomial, but no additional controls. It replicates Column (2) in Table 5.2. In subfigures (b) and (d) we incorporate village-level geographical controls, village-level historical controls, and individual-level controls to the previous model. It replicates Column (5) in Table 5.2. In all four cases, bins are chosen to minimize integrated mean squared error, which in turn approximates the underlying unknown regression function.