

Anderson (2018, AER)

Student Presentation in Master's Thesis Workshop 1

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<https://yasu0704xx.github.io>

Legal Origins and Female HIV²

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More than one-half of all people living with HIV are women and 80 percent of all HIV-positive women in the world live in sub-Saharan Africa. This paper demonstrates that the legal origins of these formerly colonized countries significantly determine current-day female HIV rates. In particular, female HIV rates are significantly higher in common law sub-Saharan African countries compared to civil law ones. This paper explains this relationship by focusing on differences in female property rights under the two codes of law. In sub-Saharan Africa, common law is associated with weaker female marital property laws. As a result, women in these common law countries have lower bargaining power within the household and are less able to negotiate safe sex practices and are thus more vulnerable to HIV, compared to their civil law counterparts. Exploiting the fact that some ethnic groups in sub-Saharan Africa cross country borders with different legal systems, we are able to include ethnicity fixed effects into a regression discontinuity approach. This allows us to control for a large set of cultural, geographical, and environmental factors that could be confounding the estimates. The results of this paper are consistent with gender inequality (the “feminization” of AIDS), explaining much of its prevalence in sub-Saharan Africa. (JEL I12, J15, J16, K11, K15, O15, O17)

This slide is available on

<https://github.com/yasu0704xx/ArticleReview>.

- Anderson (2018) examines causal relationship between female bargaining power and female HIV infection rates in sub-Saharan Africa.
- Endogeneity: ethnicity fixed effects
 - As-if random borders in sub-Saharan Africa
⇒ A regression discontinuity approach
- Result 1 (HIV positive rates)
 - Female: common law countries > civil law countries
 - Male: no significant difference
- Result 2 (Contraception use)
 - Female: common law countries > civil law countries
 - Male: common law countries > civil law countries

Background

Data

Empirical Strategy

Main Results

Conclusion

Background

“Feminization” of HIV/AIDS in Sub-Saharan Africa

Data

Empirical Strategy

Estimand

- Average effect of common law on outcomes close to national borders with different legal system
- Outcomes: HIV prevalence, Contraception use, Female property ownership, Female bargaining power

Identification

- Sharp RD
- Address endogeneity emerged from ethnicity fixed effect

Model Specification

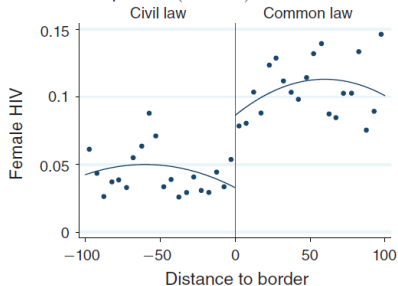
$$Y_{rcepi} = \alpha_0 + \alpha_1 L_{rc} + \alpha_2 X_{rc} + \alpha_3 X_{rcep} + \alpha_4 X_{rcepi} + f(BD_{rcep}) + \delta_e + \gamma_r + \lambda_t + \epsilon_{rcepi} \quad (1)$$

- Subscripts: **r**egion, **c**ountry, **e**thiinc homeland, **p**ixel
- Y_{rcepi} : an outcome of interest
- L_{rc} : common law legal system indicator (1 if common law, 0 if civil law)
- $X_{rc}, X_{rcep}, X_{rcepi}$: vectors of controls
- $f(BD_{rcep})$: a second-order RD polynomial of the distance from the centroid of pixel to the nearest national border with different legal origins
- δ_e, γ_r : fixed effects w.r.t. ethnicity and region, respectively
- ϵ_{rcepi} : an error term clustered at the ethnicity and country

Main Results

HIV Prevalence Rates

Panel A. HIV positive (*females*)



Panel B. HIV positive (*males*)

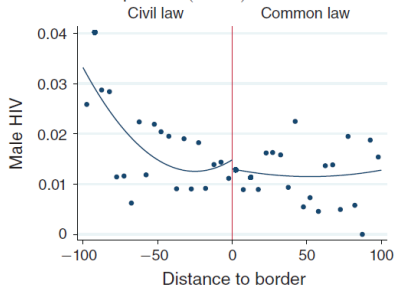


FIGURE 2. HIV POSITIVE

HIV Prevalence Rates

TABLE 1—HIV POSITIVE: FEMALES AGED 15–49

Variable	Whole sample	≤ 150 km	≤ 100 km	Non-Muslim Non-Polygynous	Muslim Polygynous
	≤ 200 km			≤ 100 km	≤ 100 km
Common law	0.016 (0.006)	0.018 (0.006)	0.019 (0.007)	0.016 (0.006)	0.007 (0.013)
Observations	118,903	99,511	77,336	55,507	21,829

Notes: Standard errors are clustered at the ethnic and country level using the approach of Cameron, Gelbach, and Miller (2011). All estimations include: country, individual, and pixel controls; region fixed effects; ethnic fixed effects; second-order RD polynomial of distance to national border; and the year of the survey. Refer to the online Appendix for details on the data.

TABLE 2—HIV POSITIVE: MALES AGED 15–49

Variable	Whole sample	≤ 150 km	≤ 100 km	Non-Muslim Non-Polygynous	Muslim Polygynous
	≤ 200 km			≤ 100 km	≤ 100 km
Common law	0.001 (0.006)	0.001 (0.005)	–0.001 (0.005)	–0.003 (0.005)	0.002 (0.01)
Observations	50,754	40,780	31,189	24,261	6,928

Notes: Standard errors are clustered at the ethnic and country level using the approach of Cameron, Gelbach, and Miller (2011). All estimations include country, individual, and pixel controls; region fixed effects; ethnic fixed effects; second-order RD polynomial of distance to national border; and the year of the survey. Refer to the online Appendix for details on the data.

Protective Contraception

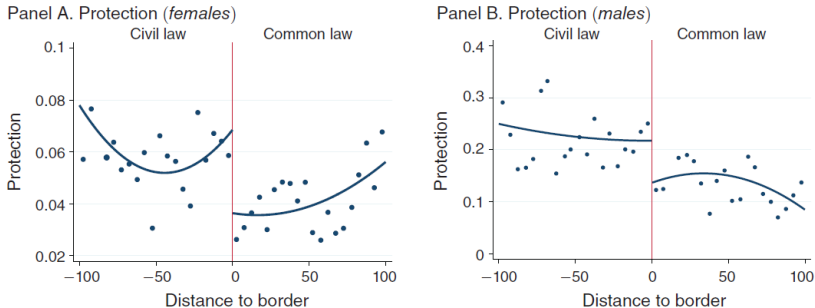


FIGURE 3. PROTECTION

Protective Contraception

TABLE 3—PROTECTIVE CONTRACEPTION: FEMALES AGED 15–49

Variable	Whole sample			Non-Muslim Non-Polygynous	Muslim Polygynous
	≤ 200 km	≤ 150 km	≤ 100 km	≤ 100 km	≤ 100 km
Common law	−0.018 (0.006)	−0.019 (0.006)	−0.019 (0.007)	−0.024 (0.01)	−0.008 (0.007)
Observations	117,263	97,285	76,698	55,261	21,437

Notes: Standard errors are clustered at the ethnic and country level using the approach of Cameron, Gelbach, and Miller (2011). All estimations include country, individual, and pixel controls; region fixed effects; ethnic fixed effects; second-order RD polynomial of distance to national border; and the year of the survey. Refer to the online Appendix for details on the data.

TABLE 4—PROTECTIVE CONTRACEPTION: MALES AGED 15–49

Variable	Whole sample			Non-Muslim Non-Polygynous	Muslim Polygynous
	≤ 200 km	≤ 150 km	≤ 100 km	≤ 100 km	≤ 100 km
Common law	−0.07 (0.02)	−0.07 (0.02)	−0.07 (0.02)	−0.08 (0.02)	−0.003 (0.02)
Observations	81,873	67,887	52,902	46,016	6,886

Notes: Standard errors are clustered at the ethnic and country level using the approach of Cameron, Gelbach, and Miller (2011). All estimations include country, individual, and pixel controls; region fixed effects; ethnic fixed effects; second-order RD polynomial of distance to national border; and the year of the survey. Refer to the online Appendix for details on the data.

Female Bargaining Power

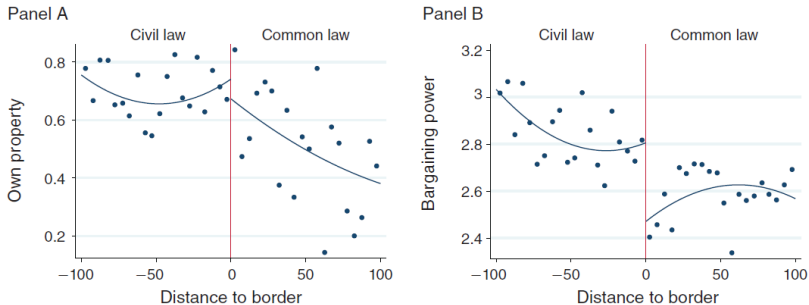


FIGURE 4

Female Bargaining Power

TABLE 5—PROPERTY OWNERSHIP: PREVIOUSLY MARRIED FEMALES AGED 15–49

Variable	Whole sample	≤ 250 km	≤ 200 km	Non-Muslim	Muslim
	≤ 300 km			≤ 200 km	≤ 200 km
Common law	–0.18 (0.07)	–0.19 (0.08)	–0.18 (0.09)	–0.24 (0.11)	–0.08 (0.13)
Observations	2,627	2,450	2,325	1,875	450

Notes: Standard errors are clustered at the ethnic and country level using the approach of Cameron, Gelbach, and Miller (2011). All estimations include country, individual, and pixel controls; region fixed effects; ethnic fixed effects; second-order RD polynomial of distance to national border; and the year of the survey. Refer to the online Appendix for details on the data.

TABLE 6—FEMALE BARGAINING POWER: FEMALES AGED 15–49

Variable	Whole sample	≤ 150 km	≤ 100 km	Non-Muslim Non-Polygynous	Muslim Polygynous
	≤ 200 km			≤ 100 km	≤ 100 km
Common law	–0.59 (0.12)	–0.58 (0.13)	–0.57 (0.12)	–0.60 (0.17)	–0.16 (0.30)
Observations	51,163	44,041	34,716	22,067	13,643

Notes: Standard errors are clustered at the ethnic and country level using the approach of Cameron, Gelbach, and Miller (2011). All estimations include country, individual, and pixel controls; region fixed effects; ethnic fixed effects; second-order RD polynomial of distance to national border; and the year of the survey. Refer to the online Appendix for details on the data.

Conclusion
