DEMOCRACY AND ETHNIC FAVORITISM: EVIDENCE FROM AFRICA[*]

HUSSAIN HADAH[†]

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ABSTRACT

What is the effect of democracy on ethnic favoritism? I estimate the relationship between co-ethnicity and five outcomes of public good provision – education, infant health, wealth, access to clean drinking water and access to electricity – using data from twenty-one African countries. Following previous research, I use variation in co-ethnicity across ethnic groups and over time. I first estimate the relationship between these five outcomes and co-ethnicity in the full sample and then split the analysis between anocracies and democracies. I find mixed evidence of ethnic favoritism in the full sample. I find more evidence of co-ethnic targeting when comparing within democracies only and within anocracies only.

Keywords: Ethnic favoritism; democracy; dictatorships; institutions.

JEL Classifications: D3, O1, O2.

TABLE I
SUMMARY STATISTICS

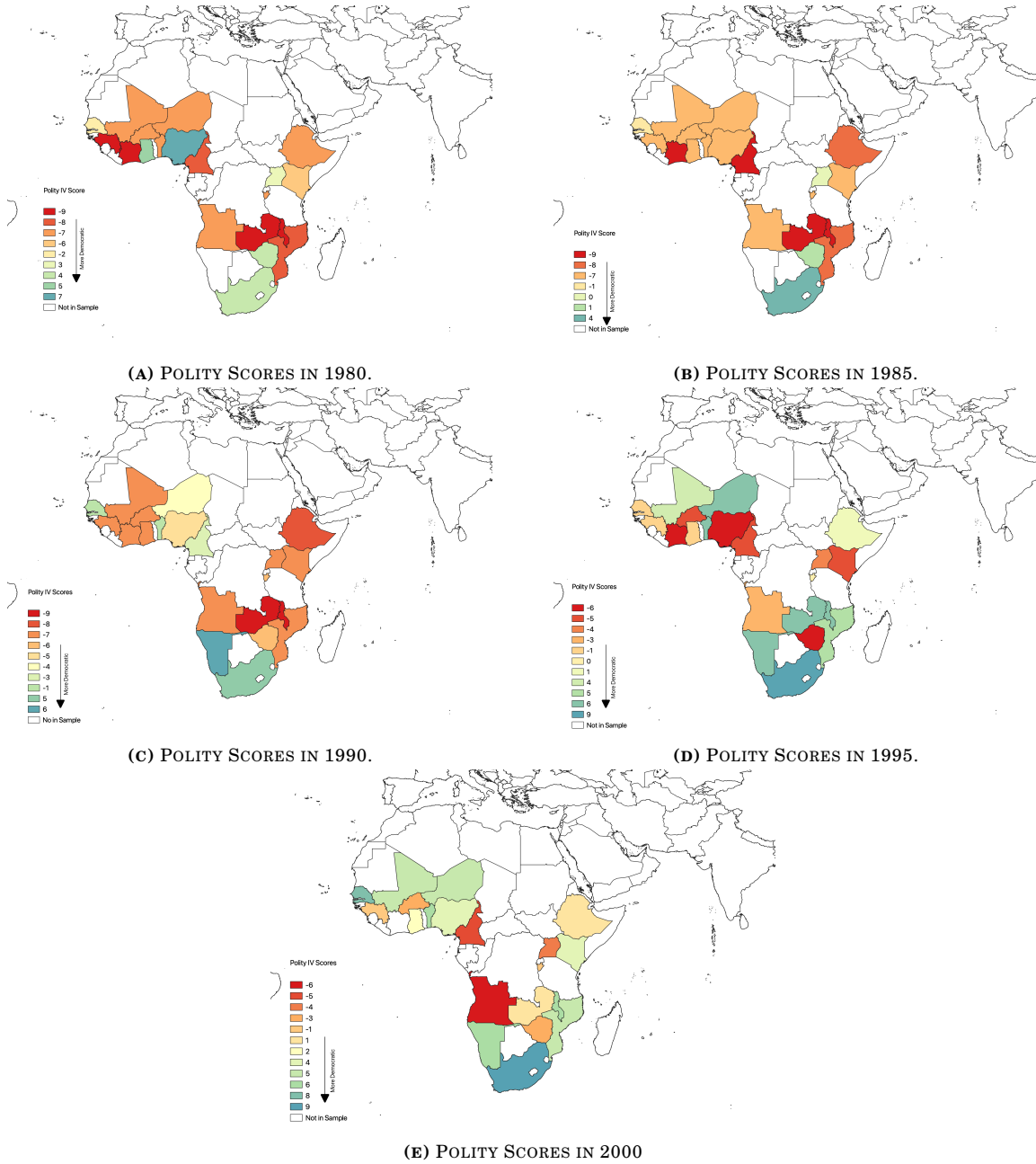| Characteristic	N = 1,387,301
Age	29 (10) 10, 98
Total children ever born	3.02 (3.99) 0.00, 99.00
Total number of household members	7.3 (5.0) 1.0, 80.0
Has electricity	0.31
Currently working	0.55
Wealth Quintile	
1	0.19
2	0.18
3	0.19
4	0.20
5	0.24
Total years of education	5.0 (4.7) 0.0, 26.0
Completed primary school	0.65
Urban	0.36
Literacy	0.58

[1] makecell[l]Mean SD) $Range$; %

TABLE VI
INSTITUTIONS' EFFECTS ON ETHNIC
FAVORITISM: USING LIGHT DATA.

	Ethnologue	GREG
	$Light_{ict}$	$Light_{ict}$
Panel A: Ethnic Favoritism		
$Coethnic_{ict}$	0.061	0.097**
	(0.051)	(0.036)
Panel B: Ethnic favoritism and institutions		
$Coethnic_{ict} \times Polity_{ct}$	-0.076	-0.041
	(0.204)	(0.131)

FIGURE I
DEMOCRACY IN SAMPLE COUNTRIES FROM 1980 TO 2000.

(A) POLITY SCORES IN 1980.

(B) POLITY SCORES IN 1985.

(C) POLITY SCORES IN 1990.

(D) POLITY SCORES IN 1995.

(E) POLITY SCORES IN 2000

Note. In this figure, I present the changes in Polity IV scores in the countries I am studying from 1980 to 2000. Notice Africa's democratization.

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TABLE II

Ethnic favoritism results

	(1) Schooling	(2) Infant Survival	(3) Wealth	(4) Electrification	(5) Clean Water
Coethnic	−0.04	0.00	0.00	0.04***	−0.03
	(0.02)	(0.00)	(0.02)	(0.02)	(0.03)
Mean	0.65	0.91	0.27	0.35	0.22
N	1146305	2516753	756737	822353	822353
Birth Year FE	X	X	X	X	X
Age FE	X	X	X	X	X
Country Specific Ethnic Group FE	X	X	X	X	X

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

[1] In this table, I am reporting the estimates of equation **??**. I present the results of the effect of ethnic favoritism on primary school completions in column 1, infant survival in column 2, wealth quintile in column 3, electrification in column 4 and access to clean drinking water in column 4. Primary school completion is a dummy variable that is equal to one if a person completed primary school and zero otherwise. Infant survival is a dummy variable that is equal to one if an infant survived the first 12 months of life. Electrification is a dummy variable that is equal to one if a household has electricity. Finally, access to clean drinking water is an ordinal variable that has values from 1, worst water source, to 4.

[2] Standard errors are clustered on country specific ethnic groups. All results include ethnic group, time and age fixed effects.
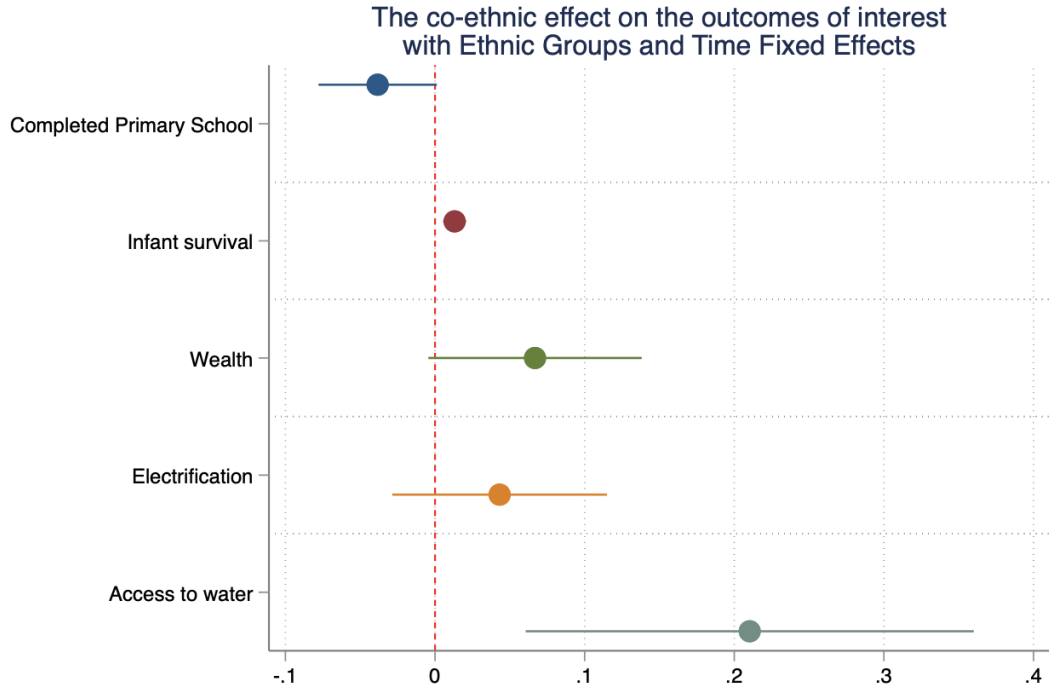

FIGURE II

Effect of co-ethnicity on outcomes of interest with ethnic group and time fixed effects.

Note. In this figure, I present the estimates of the co-ethnicity variable on primary school completion, infant survival, wealth, electrification and access to clean drinking water. The bands represent the 90% confidence interval and the standard errors are clustered on ethnic groups. All estimates include ethnic group, time and age fixed effects.

TABLE III
ETHNIC FAVORITISM AND DEMOCRACY RESULTS.

	(1) Schooling	(2) Infant Survival	(3) Wealth	(4) Electrification	(5) Clean Water
$Democracy \times Coethnic$	0.03	0.00	−0.02	0.15***	0.28*
	(0.05)	(0.01)	(0.06)	(0.04)	(0.14)
$Anocracy \times Coethnic$	0.03**	0.00	−0.08	0.07*	0.30*
	(0.01)	(0.01)	(0.05)	(0.04)	(0.16)
N	1 146 305	2 516 753	756 737	822 353	822 353
Mean	0.65	0.91	0.27	0.35	0.22
Birth Year FE	X	X	X	X	X
Age FE	X	X	X	X	X
Country Specific Ethnic Group FE	X	X	X	X	X

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

[1] In this table, I am reporting the estimates of equation **??**. I present the results of the interaction between the coethnic variable and *Polity IV* groups on primary school completions in column 1, infant survival in column 2, wealth quintile in column 3, electrification in column 4 and access to clean drinking water in column 4. Primary school completion is a dummy variable that is equal to one if a person completed primary school and zero otherwise. Infant survival is a dummy variable that is equal to one if an infant survived the first 12 months of life. Electrification is a dummy variable that is equal to one if a household has electricity. Finally, access to clean drinking water is an ordinal variable that has values from 1, worst water source, to 4.
[2] Democracies have a *Polity IV* $\in [10, 5]$, anocracies have a *Polity IV* $\in [4, -5]$ and autocracies, the omitted group, have a *Polity IV* < -5.
[3] Standard errors are clustered on country specific ethnic groups. All results include ethnic group, time and age fixed effects.

TABLE IV
ETHNIC FAVORITISM AND CONTINUOUS DEMOCRACY MEASURE RESULTS.

	(1) Schooling	(2) Infant Survival	(3) Wealth	(4) Electrification	(5) Clean Water
$PolityIV \times Coethnic$	0.01*	0.00	0.00	0.01***	0.02*
	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)
N	1 135 494	2 511 731	750 704	816 320	816 320
Mean	0.65	0.91	0.27	0.35	0.22
Birth Year FE	X	X	X	X	X
Age FE	X	X	X	X	X
Country Specific Ethnic Group FE	X	X	X	X	X

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

[1] In this table, I am reporting the estimates of equation **??**. I present the results of the interaction between the coethnic variable and *Polity IV* groups on primary school completions in column 1, infant survival in column 2, wealth quintile in column 3, electrification in column 4 and access to clean drinking water in column 4. Primary school completion is a dummy variable that is equal to one if a person completed primary school and zero otherwise. Infant survival is a dummy variable that is equal to one if an infant survived the first 12 months of life. Electrification is a dummy variable that is equal to one if a household has electricity. Finally, access to clean drinking water is an ordinal variable that has values from 1, worst water source, to 4.
[2] *Polity IV* score in this specification is continuous. It takes values that range from most autocratic −10 to most democratic 10
[3] Standard errors are clustered on ethnic groups. All results include ethnic group, time and age fixed effects.

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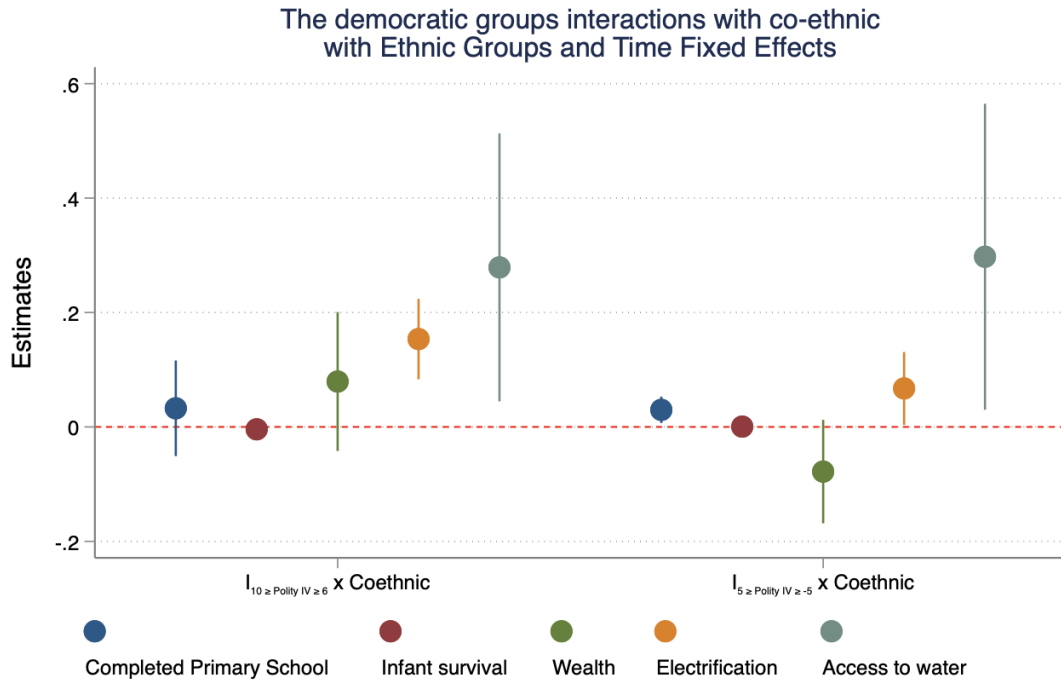
FIGURE III

WITH ETHNIC GROUPS AND TIME FIXED EFFECTS.

Note. In this figure, I present the effect of the interaction between co-ethnicity variable and Polity groups on primary school completion, infant survival, wealth, electrification and access to clean drinking water. Democracies have a *Polity IV* $\in [10, 5]$, anocracies have a *Polity IV* $\in [4, -5]$ and autocracies, the omitted group, have a *Polity IV* < -5. The bands represent the 90% confidence interval and the standard errors are clustered on ethnic groups. All estimates include ethnic group, time and age fixed effects.

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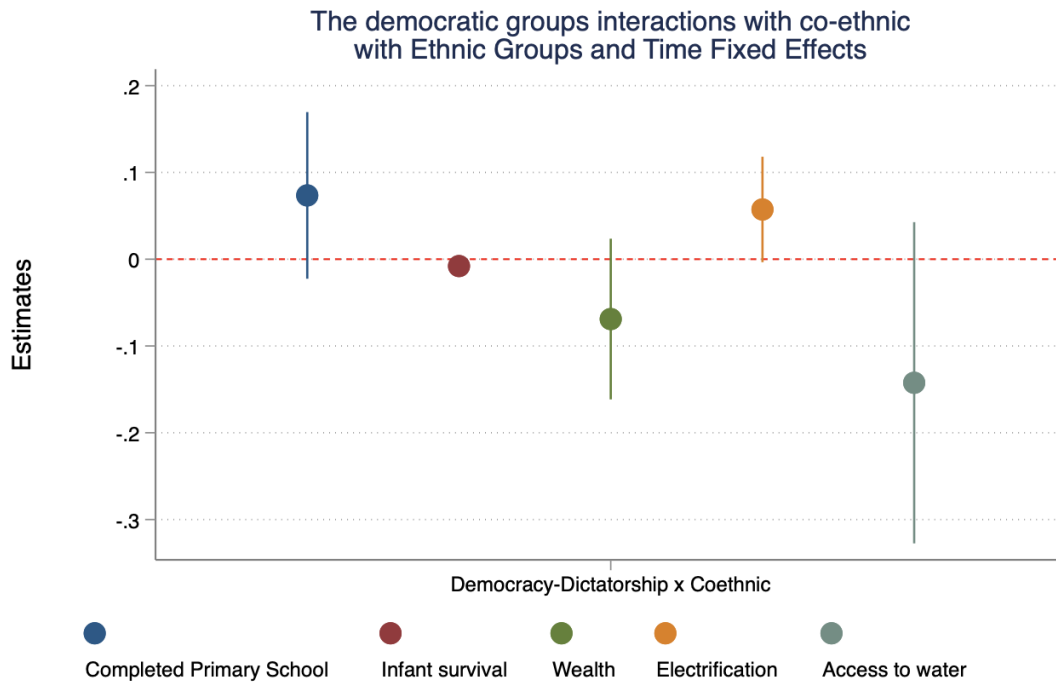Batha, Emma (2000). Britain's troubles with mugabe. *BBC News Online*.

FIGURE IV

EFFECT OF THE INTERACTION BETWEEN CO-ETHNICITY AND DEMOCRACY-DICTATORSHIP INDEX ON OUTCOMES OF INTEREST WITH ETHNIC GROUPS AND TIME FIXED EFFECTS.

Note. In this figure, I present the effect of the interaction between co-ethnicity variable and the Democracy-Dictatorship on primary school completion, infant survival, wealth, electrification and access to clean drinking water. In this specification, I used the Democracy-Dictatorship index as a measure of democracy. The Democracy-Dictatorship index is an indicator variable that is equal to 1 if a country is democratic and zero otherwise. The bands represent the 90% confidence interval and the standard errors are clustered on ethnic groups. All estimates include ethnic group, time and age fixed effects.

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TABLE V

ETHNIC FAVORITISM AND CONTINUOUS DEMOCRACY MEASURE RESULTS.

	(1) Schooling	(2) Infant Survival	(3) Wealth	(4) Electrification	(5) Clean Wa
$DDIndex \times Coethnic$	0.07	−0.01	0.11	0.06	−0.14
	(0.06)	(0.01)	(0.07)	(0.04)	(0.11)
N	988 262	2 070 052	452 222	453 673	453 673
Mean	0.65	0.91	0.27	0.35	0.22
Birth Year FE	X	X	X	X	X
Age FE	X	X	X	X	X
Country Specific Ethnic Group FE	X	X	X	X	X

* p < 0.1, ** p < 0.05, *** p < 0.01

[1] In this table, I am reporting the estimates of equation **??**. I present the results of the interaction between the coethnic variable *Polity IV* groups on primary school completions in column 1, infant survival in column 2, wealth quintile in column 3, electrific in column 4 and access to clean drinking water in column 4. Primary school completion is a dummy variable that is equal to on person completed primary school and zero otherwise. Infant survival is a dummy variable that is equal to one if an infant sur the first 12 months of life. Electrification is a dummy variable that is equal to one if a household has electricity. Finally, acc clean drinking water is an ordinal variable that has values from 1, worst water source, to 4.

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TABLE VII
THE NUMBER OF CO-ETHNIC AND NON-COETHNIC OBSERVATIONS IN EACH POLITY SCORE.

Polity Score	Not a Co-ethnic Leader	Co-ethnic Leader
-9	130,381	26,648
-8	27,207	1,613
-7	241,663	37,388
-6	37,936	3,701
-5	17,965	5,928
-4	23,396	1,564
-3	12,863	3,147
-2	9,870	1,338
-1	44,950	19,604
0	16,269	1,336
1	6,624	340
2	6,345	200
3	7,604	273
4	31,825	1,689
5	4,550	539
6	13,091	3,329
7	18,290	4,054
8	5,890	1,674
9	37	1,762

TABLE VIII

THE NUMBER OF CO-ETHNIC AND NON-COETHNIC OBSERVATIONS IN POLITY GROUPS.

Polity Score	Not a Co-ethnic Leader	Co-ethnic Leader
Democracy	37,308	10,819
Open Anocracy	56,948	3,041
Closed Anocracy	125,313	32,917
Autocracy	437,187	69,350
Failed or Occupied	1,229	92

A.1. Countries included in the data-set

I used data from twenty-one countries. These countries and the distribution of observations are presented in table IX.

TABLE IX

TABLE IX
NUMBER OF OBSERVATIONS BY COUNTRY.

Country	Number of observations	Percent
Angola	12,145	1.57
Cameroon	31,777	4.10
Congo Democratic Republic	28,224	3.65
Benin	41,969	5.42
Ethiopia	29,437	3.80
Ghana	27,571	3.56
Guinea	22,107	2.86
Cote d'Ivoire	18,403	2.38
Kenya	58,278	7.53
Malawi	68,081	8.79
Mali	42,372	5.47
Mozambique	18,179	2.35
Namibia	2,872	0.37
Niger	29,963	3.87
Nigeria	90,445	11.68
Senegal	92,990	12.01
South Africa	20,249	2.62
Zimbabwe	16,987	2.19
Uganda	47,739	6.17
Burkina Faso	36,834	4.76
Zambia	37,582	4.85
Total	774,204	100