

The Effects of Matrilineality on Gender Differences in Political Behavior across Africa*

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Abstract

Women tend to participate less in political and civic life across Sub-Saharan Africa, which could be due to inequality in access to resources, norms against gender equality, or both. We explore the implications of kinship systems for gender-specific access to resources, and evaluate whether matrilineal kinship is associated with smaller gender gaps in political and civic participation. Using a combination of Afrobarometer and cross-national ethnographic data from 26 countries, we find that the gender gaps in political engagement, political participation, and civic participation are significantly smaller among matrilineal ethnic groups compared to patrilineal and mixed-descent groups. We then explore the relative importance of women's access to material (e.g., land) and social (e.g., matrilineal residence) resources in closing gender gaps through an in-depth analysis of data from Malawi, a country in which 75% of the population hails from a matrilineal group. We find that material resources trump social ones in explaining female empowerment, but that access to land *through matrilineal inheritance* matters above and beyond the short-term material implications of owning land. This suggests that it is the long-term expectation of resource entitlements conferred by matrilineal inheritance, rather than a single positive economic shock, that ultimately empowers women.

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There is a consensus in the literature that women across sub-Saharan Africa are disempowered socially and politically relative to men (Logan and Bratton, 2006; Isaksson, Kotsadam and Nerman, 2014). This has implications for equal economic opportunities and development more generally (Duflo, 2012). Depressed participation by women also results in an under-representation of their interests in both formal and informal political institutions, especially where men and women have sharply divergent preferences (Gottlieb, Grossman and Robinson, 2016). Despite such consensus on the severity and importance of the problem, however, variation in gender inequality across African communities and the mechanisms producing this inequality are relatively poorly understood.

Existing research has documented both resource inequality and norms-based constraints as determinants of gender differentials in political and civic participation (e.g., Burns, Schlozman and Verba, 2001; Verba et al., 1993; Inglehart and Norris, 2003; Isaksson, Kotsadam and Nerman, 2014). However, we do not yet fully understand why women are more equal to men in some places than others, and why treatment of women in a single place might change over time. One approach to understanding the origins of gender-unequal outcomes is to focus on cultural, social, and economic institutions that structure gender roles asymmetrically (e.g., Alesina, Giuliano and Nunn, 2013; Duflo, 2012; Mabsout and Van Staveren, 2010; Van Staveren and Odebode, 2007). In line with this tradition, we focus on the role of kinship systems in shaping gender-specific access to resources, and evaluate whether *matrilineal kinship* is associated with smaller gender gaps in political and civic participation across Sub-Saharan Africa. We exploit the fact that matrilineality – kinship systems in which descent and familial membership is traced through the female line – is most common in the Sub-Saharan African region, producing substantial variation within and across countries.

The differences between matrilineal and patrilineal kinship systems have implications far beyond descent, including the structure of familial obligation, the gendered-division of labor, the inheritance of property, political succession, residential locality patterns, social interactions between family members, and the distribution of authority (Schneider and Gough, 1961). Given the prominence of matrilineality within African societies and the potential it has to produce differential relationships between genders relative to the more common patrilineal form of descent, we study the implications of this practice for gender gaps in civic and political behavior. Because the benefits of matrilineality work through a set of distinct mechanisms, finding a positive correlation between matrilineality and the relative status of women will further shed light on the determinants of variation in gender inequality and potential mechanisms to improve the status of women in African societies.

Whether or not matrilineality improves the relative status of women is an open question. There are strong arguments in the literature for and against the potential for matrilineal descent patterns to

empower women. Some argue that matrilineal descent lines merely change the way in which land and lineage is passed down and traced, but decision-making authority remains in the hands of men and thus women are no better off. Others argue that matrilineality produces conflicting allegiances for men among their own families and their wives' thus diminishing their authority, and improves access to land and support networks among women thus increasing their relative position.

Much of the empirical literature testing these competing hypotheses is restricted to case studies that do not provide a direct comparison between matrilineal groups and an appropriate comparison within patrilineal groups (Schatz, 2002). In this paper, we provide the first large-N test (to our knowledge) of the relative civic and political behavior of men and women in matrilineal groups compared to that in patrilineal groups. We do so by matching ethnographic data on descent patterns from Murdock (1967) with outcomes from public opinion polls in 26 countries included in Afrobarometer V (Afrobarometer, 2012). We find that the gender gaps in political engagement, political participation, and civic participation are significantly smaller in matrilineal groups compared to patrilineal ones.

While this first finding answers some questions, it also raises new ones. What is it about matrilineal kinship that improves these civic and political indicators for women? There is a debate in the literature about whether the constraints to female participation are largely a result of differential access to material resources (land, income, assets) and social capital (education, networks or connections), or to formal and informal barriers – what we might think of as asymmetric gender norms – to women gaining access to social, political, and economic opportunities. Efforts to close the gender gap in political participation have attempted to both infuse women with greater resources and to change gender norms. The former suffers from what has been termed the “resource paradox”¹ while the latter suffers from the stickiness and slow-changing nature of norms themselves. The success of matrilineality in improving prospects for women, it turns out, combines important aspects of both resources and norms.

To better understand how matrilineality is working to improve prospects for women, we undertake a case study in Malawi – a country with substantial diversity in lineage practices – that allows us to move past ethnicity-based categorization of matrilineality and explore the actual practice of matrilineal customs. We first show, using rich survey data from the Malawi Longitudinal Study of Families and Health (MLSFH),² that ethnic group level matrilineal descent rules imply

¹Asymmetric gender norms have been found, in some cases, to neutralize or even reverse the advantage that greater resources might otherwise confer on a woman, e.g. increased social or economic opportunities or greater bargaining power, “by affecting their exit options, their bargaining agency, for example, accepting male authority when they have formally equal rights, their preferences, through adapting these to what is deemed proper for women, and their roles in the household, limiting what can and what cannot be bargained over” (Mabsout and Van Staveren, 2010).

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greater access to both material resources (land inherited through the matriline) and social capital (matrilocal residence), but with some variation within groups. Using individual-level measures of adherence to matrilineal practices then allows us to compare whether and how material and social resources contribute to female empowerment, including support for women leaving their husbands and economic autonomy. We find that material resources trump social ones in contributing to improvements in our outcomes of interest.

However, we do not interpret this finding as solely in favor of a resource-based explanation for constraints to female empowerment. Instead, we argue that it is the long-term expectation of resource entitlements conferred by matrilineal inheritance rather than a one-time positive economic shock that empowers women. Empirically, this means that land inherited matrilineally is more consequential than land obtained through other means. Thus, we conclude that long-term expectations of land entitlement and security, and the history of less gender disparity in access to resources over generations, may ultimately yield an effect on present outcomes because of its indirect effect on reducing asymmetries in gender norms over time. This interpretation of our findings has implications for the implementation of policies aimed at empowering women: while impacts may be elusive in the short-term, sustained access over time may generate more promising outcomes in the long-term.

Matrilineal Descent and Women's Participation

Matrilineality refers to a kinship system in which descent is traced through the female line (matriline). At a minimum, matrilineal kinship determines the lineage (mother's or father's) to which an individual belongs. In practice, such belonging may have far reaching implications for social, cultural, economic, and political practices. For example, the gender through which the lineage is traced can affect the residential patterns of married couples (Schneider and Gough, 1961; Davison, 1997). In many, though not all, matrilineal societies, a married couple will reside in the wife's natal home with her mother, her mother's siblings, and her own sisters and their children.³ In our sample (described in detail below), 84% of matrilineal groups practice matrilocal residence, while only 1% of patrilineal groups do the same. Such residence patterns often imply labor obligations, with matrilineal families owning the labor of men who marry their daughters (Davison, 1997). Descent systems also influence in many cases the inheritance of property, with property handed down

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³We refer to this practice throughout as "matrilocal residence" or "matrilocality," but we use such terms as synonymous with "uxorilocality," and include all married couples that reside with the wife's family regardless of whether the couple has children or not (see Adam, 1947, for a discussion of terminology).

from women to their daughters and granddaughters and/or from men to their sister's sons (Schneider and Gough, 1961). Matrilineality may also influence social systems of familial obligation, the gendered-division of labor, political succession, social interactions between family members, and the distribution of authority (Schneider and Gough, 1961).

Matrilineal systems exist in every region of the world, but are much less common than patrilineal descent systems. In one enumeration of all ethnocultural groups in the world (Murdock, 1967), 13% practice matrilineal descent, including 16% of all societies in Africa (exclusive of Madagascar and the Sahara), 3% in Circum-Mediterranean (North Africa, Turkey, Caucasus, Semitic Near East), 1% in East Eurasia (including Madagascar and islands in Indian Ocean), 15% in Insular Pacific (including Australia, Indonesia, Formosa, Philippines), 13% in North America (indigenous societies to the Isthmus of Tehuantepec), and 8% in South America (including Antilles, Yucatan, Central America). Within Africa, matrilineal societies appear in all regions of the continent, although there is a particular concentration in the south-central region surrounding the Zambezi river (Davison, 1997), often referred to as the "matrilineal-belt" (Richards, 1950).

It is not entirely clear why some groups are matrilineal and others not, although some scholars claim that all African societies were originally matrilineal (e.g., Murdock, 1959; Saidi, 2010). Because maternity is typically more certain than paternity, matrilineality may arise (or, more likely, persist) in contexts where paternity is more uncertain (Holden, Sear and Mace, 2003). Under such conditions, societies will transition from matrilineal to patrilineal kinship only if paternal uncertainty is reduced, through strict control of women's sexuality, or if the benefits to male inheritance outweigh that uncertainty. Holden and Mace (2003) argue that the latter often occurs with the introduction of cattle or other livestock. Another mechanism of change in descent rules comes with the conquest of one group by another. For example, the Ngoni, who spread north from southern Africa during the early nineteenth century *Mfecane*, brought their patrilineal descent with them into parts of present day Malawi, Mozambique, and Zambia (Phiri, 1983). For this reason, many non-matrilineal groups residing near matrilineal groups practice mixed descent rather than strict patrilineal descent. Finally, matrilineal customs were challenged by both colonial and Christian ideologies, as well as the introduction of capitalist production and wage labor economies (Phiri, 1983; Schatz, 2002).

Matrilineality and Women's Empowerment

There are two opposing arguments in the literature about the relationship between matrilineality and women's empowerment. One argues that despite the fact that the lineage is traced through women, true decision-making authority within matrilineal societies nevertheless resides with men (Schlegel, 1972), typically through the avunculate (authority of a maternal uncle). The main distinction between matrilineal and patrilineal systems of descent, according to this argument, is

simply whom a man controls: his wife and children in patrilineal societies, or his sisters and their children in matrilineal ones. In fact, male authority within matrilineal societies is the source of the so-called “matrilineal puzzle” (Richards, 1950). This puzzle results from the fact that matrilines have to maintain connections to their female members, as bearers of future generations, but also their male members, who are the “decision-makers” (Schatz, 2002). This means that men within matrilineal societies have a division of allegiances between their own matriline, where they hold authority, and their wife’s kin, to whom their children and labor belong. Given that men maintain control over women even within matrilineal systems, this line of argument suggests that women do not exercise more autonomy or authority than women in patrilineal groups.

Others have argued that matrilineality *does* improve women’s welfare and relative power. In some cases, women are empowered directly, through greater access to positions of power, such as village heads or clan leaders (Colson, 1951; Ntara, 1977; Peters, 1997; Phiri and Vaughan, 1977). More typically, though, women benefit from matrilineal descent and its associated practices even if men retain most decision-making power (Peters, 1997). One benefit is that women in matrilineal societies have greater access to land and other assets, either through direct inheritance and ownership, or through greater access to the possessions of the larger matriclan. This access gives women more direct control over land and other productive resources, making them less reliant on their husbands and less vulnerable in the case of their spouse’s death. In addition, women in matrilineal systems have continued kin support, either by living with or near their own family after marriage or through on-going connections that are maintained by matrilineal kinship (Vaughan, 1987). Finally, women in matrilineal societies are likely to have greater intra-household bargaining power *vis-a-vis* their spouses. This is certainly true when a couple resides matrilocally and a woman is surrounded by her family. But it is also likely to be the case no matter the residence location, since matrilineal women have greater exit options than patrilineal women, for whom bridewealth would have been paid, effectively limiting a woman’s ability to return home after a failed marriage or spousal death (Schatz, 2002, 2005). As a result, marriage bonds tend to be weaker and divorce rates higher in matrilineal groups (Schatz, 2002), presumably allowing women more power within the marriage (Phiri, 1983). The security that comes from matrilineal forms of descent thus translate into different patterns of behavior among women, including increased competitiveness (Gneezy, Leonard and List, 2009) and greater risk acceptance (Gong and Yang, 2012).

Matrilineality and the Political and Civic Participation of Women

Because women’s empowerment is a difficult construct to observe and measure, we first focus on women’s relative civic and political participation as one indicator of their underlying level of empowerment. This assumes, rather straightforwardly, that an empowered woman is one who can and

will participate relatively more in civic and political life compared to male counterparts. Greater female civic and political participation is one of many outcomes of a more female-empowered society, in addition to greater economic opportunities, but we argue it is an important outcome to consider as political and economic prospects are often inextricably intertwined. We prefer studying women's civic and political participation to the number of females holding office because the former captures a broader range of potential societal changes and female influence in society extends further than formal political representation. For example, research in a Thai village showed how women in a matrilineal society hold considerable influence and sway (largely given family connections within and between villages), despite the fact that no women were actually running for office (Bowie, 2008).

If matrilineality does indeed reduce gender differences in political and civic behavior, then it is important to understand through what channels matrilineality has this effect. We are interested in whether certain practices of matrilineality are more powerful or effective at changing prospects for women than others, and whether it is the short-term access to resources that matters or whether it is instead long-term access to resources that generates different expectations or norms with respect to women's status. In particular, we consider the following questions. First, does matrilineality improve women's engagement and participation through increased access to productive resources such as land, or by allowing women to maintain strong social and residential ties to their own family? And second, do these effects occur only in the short-term because of immediate access to material and social capital, or via changing social norms over the long-term?

Following Amartya Sen (1990), we consider how matrilineality affects female "entitlements" rather than a woman's actual stock of resources. This approach focuses on access or expectations of access to resources which can be as or more important than one's short-term stock of resources, particularly with respect to an individual's status or ability to use resources or entitlements for bargaining power. As Kerr (2005) suggests, the theoretical division of entitlements into two types – endowments and exchange – maps nicely onto the ways in which different matrilineal practices might affect a woman's life and livelihood. Endowments, or owned assets, represent the entitlements that might be affected by matrilineal versus patrilineal inheritance of land. Exchange entitlements, which are mediated by social relations, represent the advantages that matrilocality might confer on a woman.

This framework helps address both of our questions about *how* matrilineality is affecting behavioral political outcomes: whether certain practices of matrilineality are more important than others in affecting outcomes for women, and whether it is the immediate stock of resources or the expectation of future entitlements that matters most.

Cross-National Data

The cross-national data come from the Afrobarometer V (2011-2012) (Afrobarometer, 2012) and Murdock's *Ethnographic Atlas* (Murdock, 1967). Afrobarometer includes data on 41,990 individuals across 511 ethnic groups and 26 countries.⁴ The *Ethnographic Atlas* includes information on social, cultural, political, and economic characteristics of 1267 "societies" from around the world, including 551 in Africa.

To examine the relationship between matrilineality and political and civic participation, we first match ethnic groups enumerated in the Afrobarometer V survey data – for which we have measures of political and civic participation – to ethnic groups included in the *Ethnographic Atlas*. The matching was not straightforward, as some group names are spelled differently in the two lists, some groups are referred to by different names in the two lists, and sometimes a group is broken into sub-groups in one list. We used the coding decisions of previous scholars merging Afrobarometer and *Ethnographic Atlas* data (e.g., Nunn and Wantchekon, 2011), as well as multiple secondary sources (e.g., Gordon, 2005; U.S. Center for World Mission, 2010). Of the 511 ethnic groups included in Afrobarometer V, 386 were matched to an *Ethnographic Atlas* entry, representing 92% of all respondents who provided an ethnic identity.⁵

Matrilineality

The presence of matrilineal descent is coded at the ethnic group level using an updated version (Gray, 1999) of the Murdock *Ethnographic Atlas* (Murdock, 1967). We rely on the variable "Descent: Major Type" (V43), which was not included in the original atlas but was constructed after its publication based on "Largest Patrilineal Kin Group" (V17) and "Largest Matrilineal Kin Group" (V19, V21). After merging Afrobarometer with the *Ethnographic Atlas*, we have data on the descent patterns of 37,198 respondents across 383 ethnic groups and 26 countries.⁶ We create a dichotomous measure of matrilineal descent which takes a value of 1 if the *Ethnographic Atlas* lists the group as matrilineal and a value of 0 if the group is coded as patrilineal, duolateral, quasi-lineages, ambilineal, bilateral, or mixed.

Based on these data, 10% of ethnic groups ($n = 37$) representing 14% of Afrobarometer respondents have matrilineal descent. Among non-matrilineal groups, most are patrilineal (76%) and the

⁴Afrobarometer V data were also collected in 8 other countries, but Cape Verde and Mauritius were dropped because the *Ethnographic Atlas* did not provide any information on their ethnic groups, and Swaziland, Algeria, Egypt, Morocco, Sudan, and Tunisia were dropped because ethnicity was not recorded as part of the Afrobarometer survey.

⁵1,318 respondents did not give an ethnic identity or said "other" while 3,444 gave an ethnic identity that could not be matched to the *Ethnographic Atlas*.

⁶Some *Ethnographic Atlas* entries have missing data for descent rule.

remainder are either duolateral, quasi-lineages, ambilineal, bilateral, or mixed. Most respondents from matrilineal ethnic groups are located in countries within the so-called “matrilineal belt,” including Malawi (75% matrilineal), Mozambique (74% matrilineal), Namibia (67% matrilineal), Tanzania (22% matrilineal), and Zambia (41% matrilineal). However, there are also several matrilineal ethnic groups represented outside these countries, in Burkina Faso (Lobi), Niger (Asben Taureg), Sierra Leone (Sherbro), and Zimbabwe (Chikunda, Nyanja, and Tonga), but all of these countries have less than 10% of respondents belonging to a matrilineal group.

Figure 1 shows the geographic distribution of ethnic groups that are coded as matrilineal and patrilineal or mixed. The geographic location of each ethnic group is based on the latitude and longitude provided in the *Ethnographic Atlas*. Figure 1 shows all groups included in the *Ethnographic Atlas*, with those groups included in the Afrobarometer in a darker shade. Figure 1 demonstrates that matrilineality occurs in all regions of Africa, although the majority of matrilineal groups are clustered in the “matrilineal belt” of south-central Africa.

Political and Civic Participation

As two of the main topics its public opinion surveys are meant to capture include democracy and governance, Afrobarometer V includes myriad questions on civic and political participation. We focus on three different sets of indicators: three indicators of political engagement, six indicators of political participation, and four indicators of civic participation. Each individual question is coded dichotomously, and we then create a composite index for each of the three sets of indicators. These indices are calculated using an inverse covariance weighted approach (Anderson, 2008), which places more weight on index components that contribute unique information. Prior to construction of the index, component variables are mean-centered and standardized, so the indices have a mean of 0. We describe each of the thirteen variables and three resulting indices below, all of which are summarized in Table 1.

Political Engagement

We measure the outcome of political engagement using the following indicators of interest in and understanding of politics:

1. *Interest in Politics* is constructed using Q14 which asks whether the respondent is interested in public affairs. The response is coded a 1 for answers of “somewhat” and “very” interested and 0 for “not at all” or “not very” interested.
2. *Discuss Politics* is constructed using Q15 which asks whether the respondent discusses political matters with family or friends. The variable takes a value of 1 if the response is “occasionally” or “frequently” and 0 for “never”.

Figure 1: Ethnic Groups in Africa by Descent Type

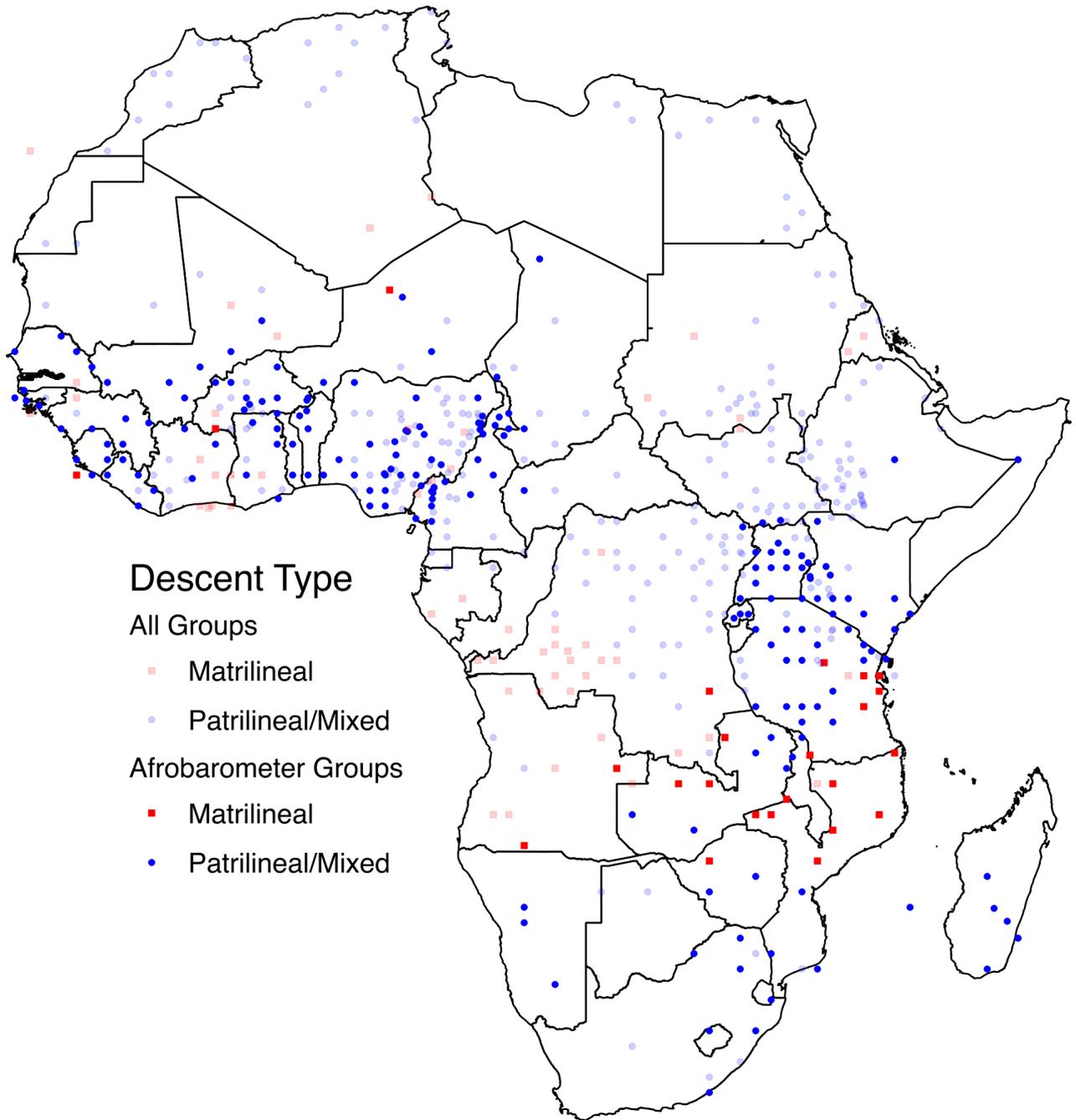


Table 1: Summary Statistics for Political and Civic Participation

	Men	Women	Overall
Descent Type			
Matrilineal Descent	0.14	0.14	0.14
Political Engagement			
Political Engagement Index	0.10	-0.10	0.00
Interest in Politics	0.65	0.52	0.59
Discuss Politics	0.75	0.61	0.68
Understand Politics	0.24	0.19	0.22
Political Participation			
Political Participation Index	0.10	-0.11	-0.00
Voted in Last Election	0.77	0.72	0.74
Contacted Political Official	0.40	0.27	0.34
Ever Demonstrated	0.10	0.07	0.09
Attended Campaign Rally	0.48	0.37	0.43
Persuaded Others on Vote	0.30	0.20	0.25
Worked for Campaign	0.22	0.12	0.17
Civic Participation			
Civic Participation Index	0.09	-0.10	-0.00
Ever Attend Community Meeting	0.68	0.59	0.63
Member of Community Organization	0.28	0.22	0.25
Leadership Experience	0.12	0.08	0.10
Join Others to Raise Issue	0.64	0.52	0.58

3. *Understand Politics* is constructed from Q16 which asks whether the respondent agrees with the statement: “sometimes politics and government seem so complicated that a person like me cannot really understand what is going on.” This variable is coded as 1 for respondents who disagree, 0 for those who agree, and 0 for respondents who neither disagree or agree.

All above variables are positively correlated, but the political engagement index has a relatively low Cronbach’s alpha score ($\alpha = 0.43$). Interest in and discussion of politics are more strongly correlated than either is with political understanding. Given the relatively low reliability of this index, we include analyses for each component of the index as well as for the composite variable.

The index shows that men are significantly more politically engaged than women, and a gender gap is apparent for all three components of the index.

Political Participation

We measure the following forms of political participation:

1. *Voted in Last Election* is based on question Q27 and assumes a 0 if the respondent did not vote in the last election for any reason and a 1 if he or she did.
2. *Contacted Political Official* comes from questions Q30A-C, which ask how often, if ever, a respondent had contacted a local government councilor, Member of Parliament, or official of a government agency about an important problem or to express one’s views. A respondent is coded as 1 if he or she ever contacted any one of these types of public officials, regardless of the frequency of contact, and a 0 if he or she reported contacting none of the three in the past year.
3. *Ever Demonstrated* comes from question Q26D and takes the value 0 if the respondent had not attended a protest march or demonstration in the past year and a 1 if he or she had done so.
4. *Attended Campaign Rally* is coded based on question Q29A, which asks whether the respondent attend a campaign rally during the last national election.
5. *Persuaded Others on Vote* is coded based on question Q29B, which asks whether the respondent tried to persuade others to vote for a certain presidential or legislative candidate or political party in the last national election.
6. *Worked for Campaign* is coded based on question Q29C, which asks whether the respondent worked for a candidate or political party during the last national election.

All above variables are positively correlated and the political participation index has a Cronbach's alpha score ($\alpha = 0.63$) with the latter three items correlating at a higher rate than the former three. Given the somewhat low reliability of the index, we include analyses for each component of the index as well as for the composite variable.

Consistent with the literature from both the developed and developing world, women participate in political activities at lower average rates than men. The index indicates that men participate about one-third of a standard deviation more than women, and the direction of the difference holds for all component variables.

Civic Participation

Civic participation is captured by four different indicators:

1. *Ever Attend Community Meeting* is based on question 26A and captures whether or not the respondent attended a community meeting in the past year.
2. *Member of a Community Organization* comes from question 25B, which takes a value of 1 if the respondent is an active member or leader of a community organization, and a value of 0 if he or she is an inactive member or not a member of any community organization.
3. *Leadership Experience* comes from questions 25A and 25B and represents whether the respondent reported holding a leadership position in either a community group or a religious group within the community.
4. *Join Others to Raise Issue* is coded based on question Q26B, which asks whether the respondent got together with others to raise an issue within the past year.

All above variables are positively correlated and the civic participation index has a Cronbach's alpha score ($\alpha = 0.64$). Again, given the relatively low reliability of this index, we include analyses for each component of the index as well as for the composite variable.

Unsurprisingly, women also participate in civic activities at lower average rates than men. The index indicates that men participate about 0.28 of a standard deviation more than women, and the direction of the difference holds for all component variables.

Cross-National Results

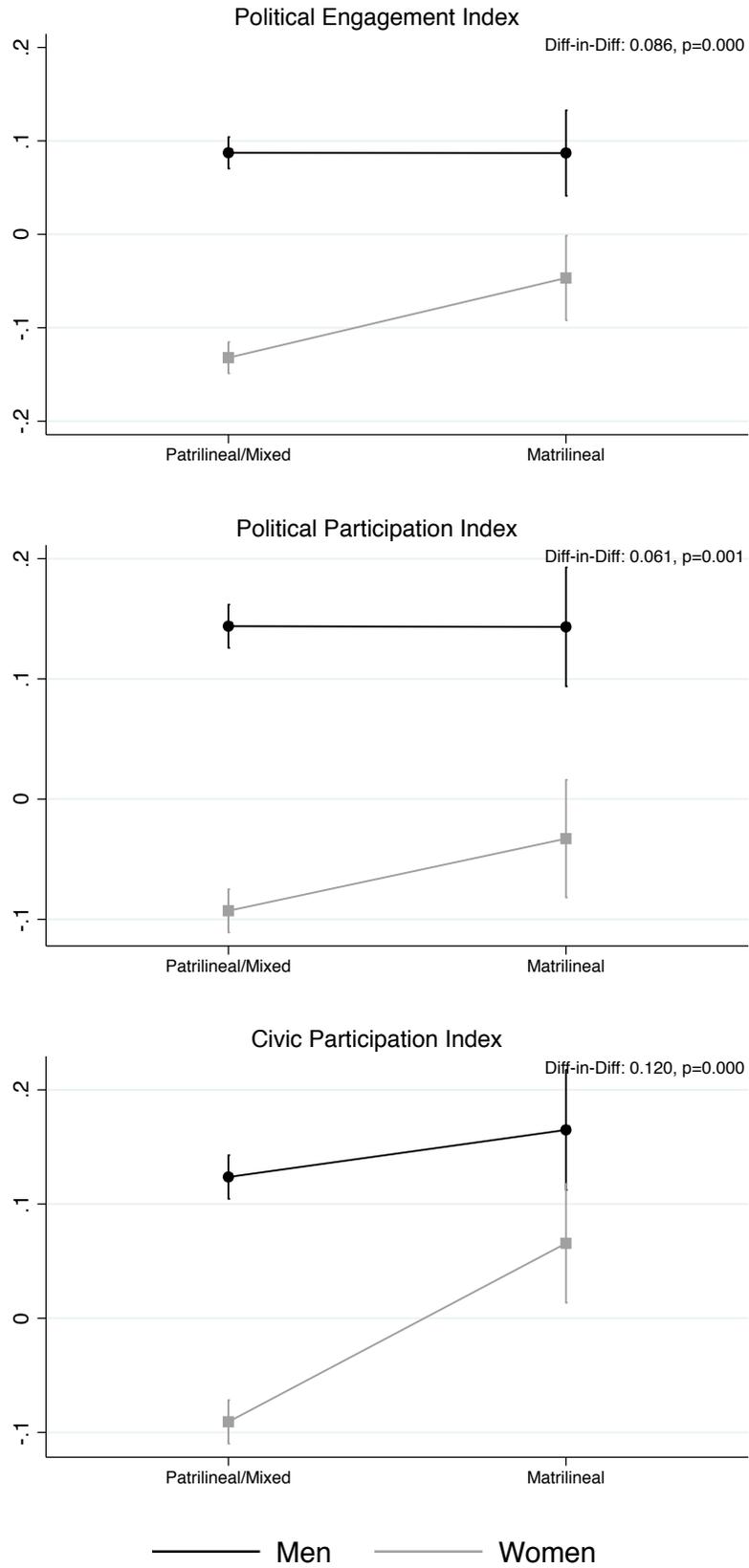
A difference-in-difference analysis is used to assess whether the engagement and participation gaps between men and women is smaller in matrilineal ethnic groups compared to patrilineal and mixed system ethnic groups. The difference in differences is estimated using an interaction between the respondent's gender ($female = 1$) and whether or not he or she is from a matrilineal ethnic group ($matrilineal = 1$). Each model includes country fixed effects and ethnic group random effects. Because ethnic groups span borders and we are interested in behavior of country-specific groups, groups are given unique codes for each country they are found in. Thus, group j should be interpreted to mean country-group j , but we refer only to "group" for simplicity. Formally, we fit the following mixed-effects linear (multilevel) regression model:

$$y_{ij} = \alpha + \beta_1 female_{ij} + \beta_2 matrilineal_{ij} + \beta_3 female_{ij} \times matrilineal_{ij} + \alpha_i + \nu_j + \varepsilon_{ij}$$

where y_{ij} is the given dependent variable or outcome for respondent i from ethnic group j . $female_{ij}$ is an indicator for female, $matrilineal_{ij}$ is an indicator for whether i 's group j is matrilineal, and α_i are country fixed effects. To account for the nested nature of the data we include ν_j , a random intercept for group j , and ε_{ij} , which is the individual error term. Dependent variables are either indices or individual variables described in the data section and are always listed in the heading of each figure. We present results as figures rather than tables for ease of comprehension, but in each case report the coefficient on the difference-in-difference estimator β_3 , as well as the p value associated with that coefficient.

The main results of the paper are presented in Figure 2, which shows scores for men and women on the indices for political engagement, political participation, and civic participation by matrilineal descent rules. Matrilineal descent is associated with a narrowing of the gender gap for all three indices. The difference (between matrilineal and non-matrilineal societies) in the difference (between men and women) is statistically significant (at $p < 0.01$) in for all three indices. While we cannot infer causation with respect to levels, it appears that the gaps are closed by women in matrilineal societies being more engaged and participatory than women in patrilineal or mixed societies. This suggests that matrilineality closes gender gaps primarily by mobilizing women.

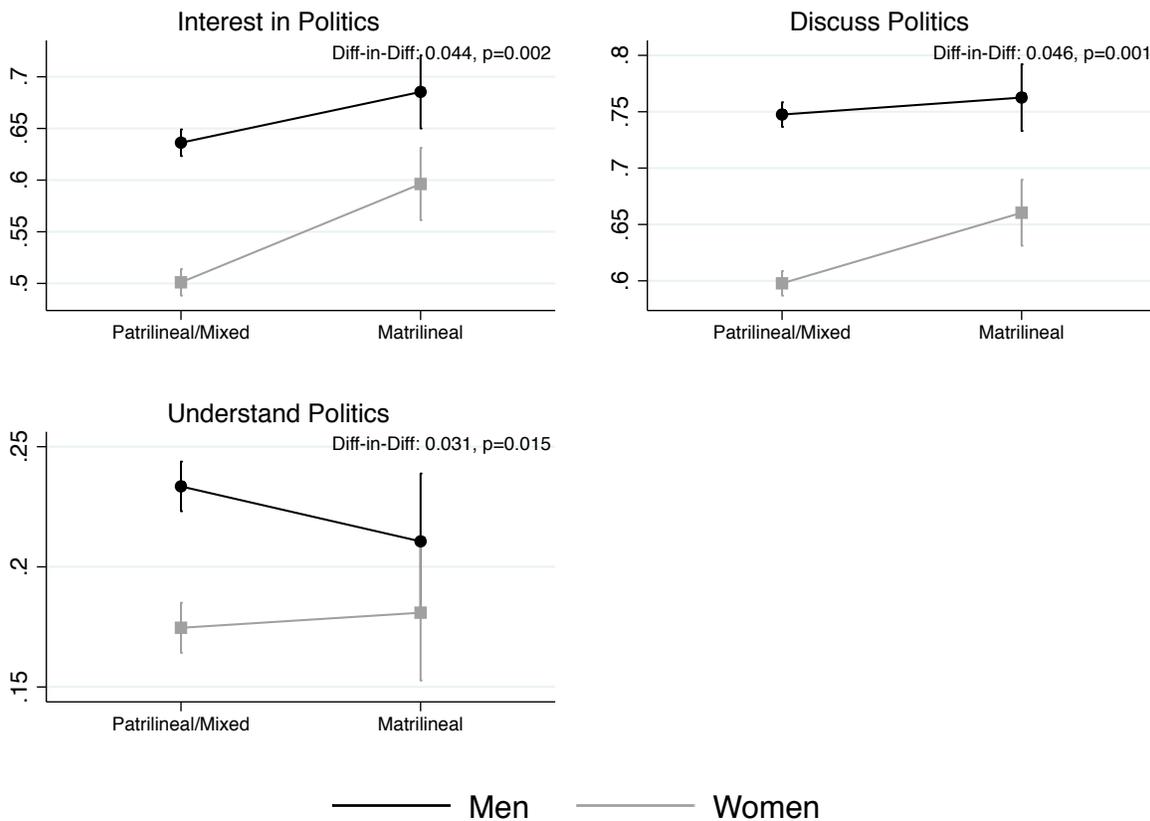
Figure 2: Gender Gaps by Descent Rule



Political Engagement

Figure 3 reports results for individual variables that make up the political engagement index. The coefficient on the difference-in-difference estimator is positive and statistically significant (at $p < 0.05$) across all three variables, indicating that matrilineality is consistently associated with a narrowing of the gender gap. While the closing of the gaps in political interest and discussion are driven primarily by women, the gender gap in understanding policies is instead driven by men in matrilineal societies reporting less understanding than men in patrilineal societies.

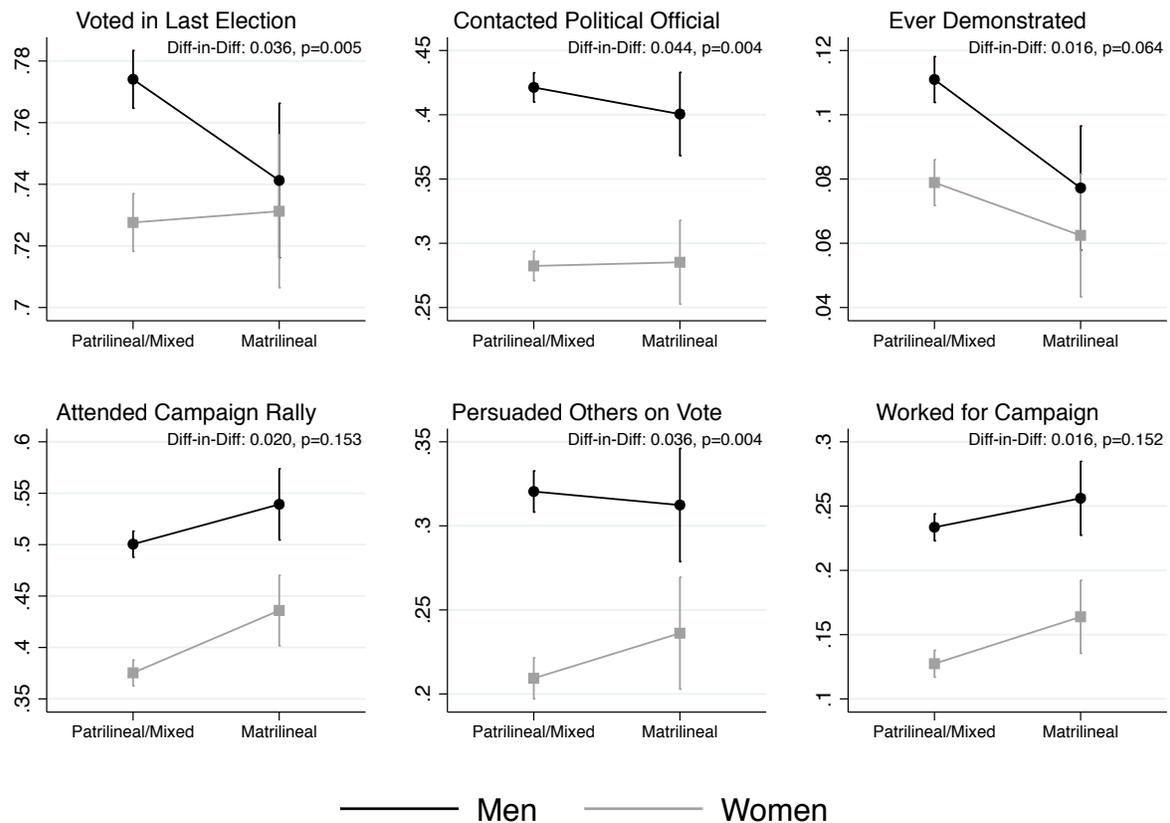
Figure 3: Gender Gaps in Political Engagement by Descent Rule



Political Participation

Figure 4 reports results for individual variables that comprise the political participation index. The coefficient on the difference-in-difference estimator is positive in each case, indicating that matrilineality is consistently associated with a narrowing of the gender gap for all indicators. The difference (between matrilineal and non-matrilineal or societies) in the difference (between men and women) is statistically significant (at $p < 0.01$) for only 3 of the 6 indicators, however. Voting and contacting local officials, which exhibit statistically significant relationships, are the main channels for political expression in most African democracies. Political campaigns and rallies, on the other hand, are rarely expressions of open, meaningful democratic debate and more often opportunities for parties to identify and distribute handouts to supporters.

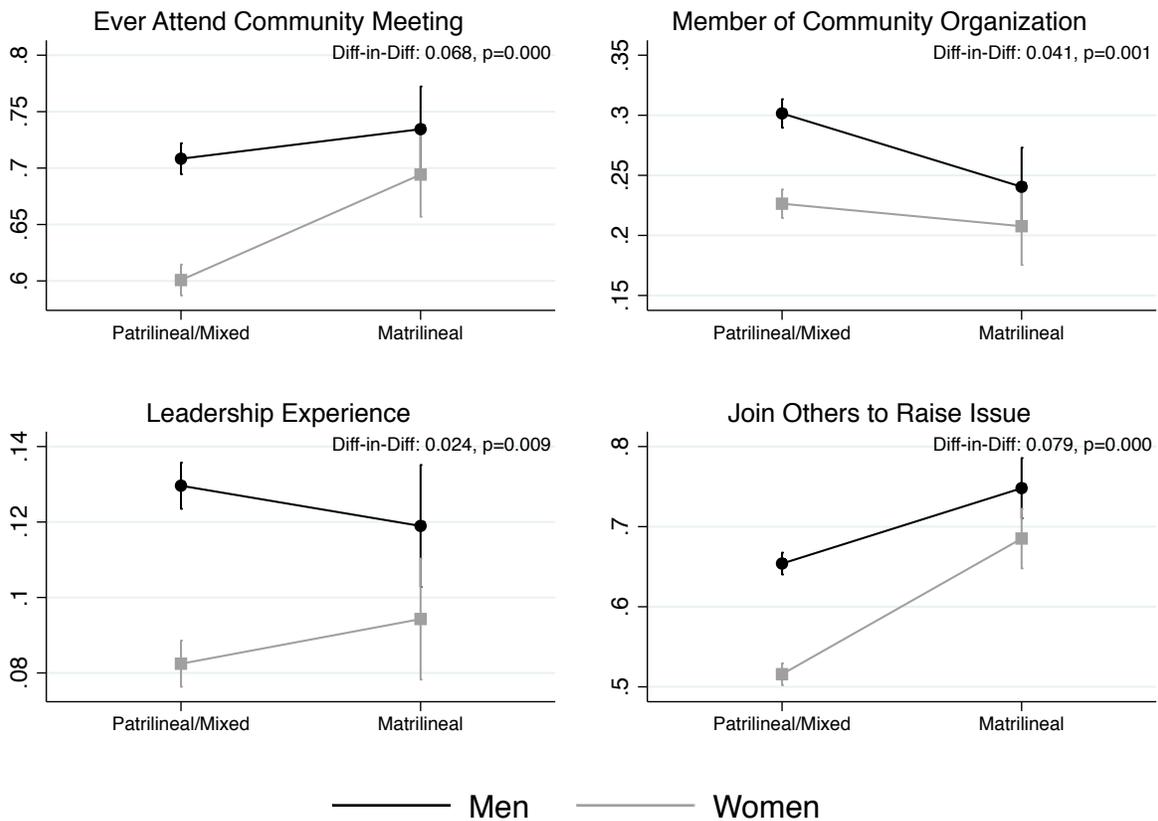
Figure 4: Gender Gaps in Political Participation by Descent Rule



Civic Participation

Figure 5 reports results for individual variables that comprise the civic participation index. The coefficient on the difference-in-difference estimator is positive in each case, indicating that matrilineality is consistently associated with a narrowing of the gender gap for all indicators. The difference (between matrilineal and non-matrilineal or societies) in the difference (between men and women) is statistically significant (at $p < 0.01$) for all 4 indicators: attending a community meeting, being a member of a community organization, leadership experience, and joining with others to raise an issue.

Figure 5: Gender Gaps in Civic Participation by Descent Rule



Mechanisms: Land and Matrilocal Residence in Malawi

The previous set of results suggests that gender gaps in political and civic participation are indeed smaller among matrilineal ethnic groups. But *why* does matrilineality narrow gender gaps in participation? The Murdock data allows us to make generalizations about which ethnic groups, on average, practice matrilineal descent. However, we know that descent rules translate into different practices across matrilineal communities, and that there is even quite considerable variation in the implementation of descent rules within ethnic communities. We therefore turn to an in-depth study of matrilineality within a single country, Malawi.⁷

Within Malawi, we leverage variation in access to land and matrilocal residence at the individual level to identify the relative importance of different matrilineal practices. In particular, data on the practice of matrilocality (residence in the wife's home or village) and land inheritance allows us to test whether access to two types of resources – land and social capital – are responsible for differences in relative female empowerment across matrilineal and patrilineal communities, and how each of these types of resources is related to specific forms of women's empowerment. We are further able to investigate whether it is the short-term access to resources or the long-term expectation of resource *entitlements* that contributes most to female empowerment.

Malawi is home to seven major ethnic groups – Chewa, Lomwe, Mang'anja (Nyanja), Ngoni, Sena, Tonga, Tumbuka, Yao – and many smaller ones. According to the coding by Murdock (1967), the Chewa, Lomwe, Mang'anja, Sena, Tonga, and Yao are matrilineal, while the Ngoni and Tumbuka are patrilineal. However, a closer evaluation of these Malawian groups nicely illustrates the subtlety that is not possible with large, cross-national dataset such as Murdock's *Ethnographic Atlas*. For example, while the Tumbuka are coded as patrilineal, they only became patrilineal in the early 1800s after being conquered by the Ngoni who emigrated from the Natal region of present-day South Africa after the Zulu Wars (Kishindo, 2002). As a result, many Tumbuka continued to practice matrilineal descent and matrilocal residence at least through the 1930s (Davison, 1997),

⁷Figures A.1 through A.4 of the appendix show the main results based solely on Afrobarometer data from Malawi. Within the Malawi data, we only find that the political engagement gender gap is smaller for members of matrilineal ethnic groups than members of patrilineal groups.

and even today the Tumbuka may retain some matrilineal practices, or the norms that accompany them (Kerr, 2005).⁸

The Ngoni also demonstrate interesting variation in descent rules. The Mpezeni Ngoni who invaded and settled in Northern Malawi and Eastern Zambia mostly maintained their patrilineal practices, and imposed them on members of the ethnic groups they conquered (e.g., Tumbuka). In contrast, the Maseko Ngoni who settled in Central and Southern Malawi were more likely to adopt the matrilineal practices of the Chewa among whom they settled (Berge et al., 2014; Davison, 1997). For this reason, Ibik (1970) codes the Ngoni outside Mzimba District in Northern Malawi as matrilineal. Ibik (1970) similarly provides different judgments from Murdock (1967) on the Sena and the Tonga, both considered matrilineal by Murdock but patrilineal by Ibik.

Finally, even among the groups consistently considered matrilineal, colonial rule, capitalism, and Christianity may have eroded matrilineal practices by favoring a nuclear understanding of family with a male head-of-household (Phiri, 1983). Perhaps as a result of this, many matrilineal Chewa of the northern and western parts of the Central region practice patrilocality (Berge et al., 2014). Nevertheless, matrilineality persists robustly in other areas despite these forces (Peters, 1997).

Many scholars and visitors have documented the striking implications of matrilineal descent systems in Malawi. Early European visitors to Southern Malawi often noted the powerful roles of women, even if they did not attribute such observations to matrilineal descent patterns. For example, a missionary observing the Mang'anja noted that he was "struck with the regard which the men had for the women, whose position seemed to be in no way inferior to that of the men" and that "it was at times amusing to see the deference which the men sometimes paid the women" (Rowley, 1867). Peters (1997) recounts her interactions with female chiefs in Southern Malawi, and the women who surround them, as well as the marginality of men in many of her interactions with rural populations.⁹ Marriages are more ephemeral and divorce more likely in matrilineal

⁸Berge et al. (2014) noted similarly mixed practices in this part of Malawi, near the border between the Northern and Central regions.

⁹However, such authority for women is limited to the domains in which the kinship group is relevant, with male authority dominating in other arenas.

groups in Malawi (Peters, 1997; Schatz, 2002), both because women maintain access to land after divorce and because bride price is less often paid such that women are not bound by repayment in the case of divorce (Kerr, 2005).

Most scholars attribute the importance of kinship systems to their implications for access to land, which is both the main means of livelihood in Malawi and increasingly scarce. Young women in matrilineal systems are given land from their matrikin upon marriage or the birth of their first child, and they may inherit more land as members of their matriline age and die (Peters, 1997). Sons typically only inherit land if there are no daughters or if the family is very rich: instead, men in matrilineal groups work the fields belonging to their wives and her matrilineal relatives (Kishindo, 2010). While some scholars have questioned whether matrilineal inheritance really puts land in the hands of women (e.g., Hatcher, Meggiolaro and Ferrer, 2005; Lastarria-Cornhiel, 2009), research in Malawi indeed finds that women directly own and control land among most members of matrilineal groups (Berge et al., 2014; Peters, 1997; Peters and Kambewa, 2007). Contributing to what have primarily been qualitative accounts, we generate new evidence about the importance of matrilineal land inheritance, as well as matrilineal residence, to female empowerment using micro-level data from across Malawi.

Data from Malawi

For this case study, we leverage the Malawi Longitudinal Study of Families and Health (MLSFH) (Kohler et al., 2015), a panel study of over 4,000 Malawians living in three different districts – Balaka (Southern region), Mchinji (Central Region), and Rumphi (Northern region) – across six rounds of survey data collection between 1998 and 2012. While MLSFH data are primarily focused on health and sexual behaviors, they also include questions on family and household dynamics. In particular, some rounds include information on personal land ownership and inheritance, divorce and spousal relations, attitudes about female autonomy, and educational and other indicators of social and human capital. We primarily utilize the 2004 round of survey data because it is the only year in which land ownership was measured at the individual rather than the household level.

This round of survey data includes information from 3,261 respondents, 55% of whom are ever-married women and the remainder of whom are (or were) their husbands. Because the surveys are longitudinal, we also exploit measures of women's economic autonomy that were only asked in 1998. Thus, our main sample includes 1,059 ever-married women interviewed in both 1998 and 2004.

Matrilineality, Land Inheritance, and Matrilocal Residence

Because the MLSFH data were collected in only three regions, only five of the seven main ethnic groups are represented in the data, which is 34% Chewa, 5% Lomwe, 6.5% Ngoni (1.2% in the North and 5.3% in the Center and South), 32% Tumbuka, and 23% Yao.¹⁰ Of these five ethnic groups, Murdock (1967) coded the Chewa, Lomwe, and Yao as matrilineal and the Ngoni and Tumbuka as patrilineal. However, consistent with past research (Davison, 1997; Ibik, 1970), we see stark differences in the practice of matrilineality among the Mpezeni and Mapezo Ngoni, with the latter inheriting land through the matriline and living matrilocally at rates similar to matrilineal ethnic groups.

The MLSFH did not ask respondents whether they observed matrilineal or patrilineal descent, but it did collect information about where respondents' lived after marriage (in the wife's home village, in the husband's home village, or another village), and whether a respondent *personally* owned land and how he or she received that land (inherited from own kin, inherited from spouse's kin, purchased, or received from a chief). Thus, we can evaluate the degree to which kinship systems at the ethnic group level affect matrilocal residence and matrilineal inheritance of land in practice.

First, in terms of *land ownership*, men and women report similar rates of land ownership among the matrilineal groups (Chewa, Lomwe, Yao, and Mapezo Ngoni: 91% vs. 89%), while men report owning land at a significantly higher rate than women among both the Tumbuka (91% vs. 52%) and

¹⁰The ethnic composition differs dramatically across the three districts. The Mchinji sample is 87% Chewa, 8% Ngoni, 2% Yao, 1% Lomwe, and 1% Tumbuka; the Balaka sample is 72% Yao, 13% Lomwe, 7% Chewa, and 7% Ngoni; and the Rumphu sample is 94% Tumbuka, 4% Ngoni, and 1-2% each of Chewa, Yao, and Lomwe.

the Mpezeni Ngoni (83% vs. 31%). This difference in the rate of land ownership among women is driven by land inherited through the matriline. Women in matrilineal and patrilineal ethnic groups were equally likely to have received land from the chief (16% vs. 18%) or bought land (4% vs. 5%), but in matrilineal groups women were more likely to receive land from their own kin (52%) than their husband's kin (28%) and the pattern was reversed for women in patrilineal groups (22% from own kin vs. 55% from husband's kin).

Second, in terms of *residence* after marriage, a majority of the matrilineal Yao (69%) and Lomwe (57%) practice matrilocal residence, but only 41% of the Mapezo Ngoni and 25% of the Chewa practice matrilocality. This is consistent with previous studies that found that many Chewa in Mchinji practice patrilocality (Berge et al., 2014). For the patrilineal Tumbuka and Mpezeni Ngoni, only 8% and 11%, respectively, of respondents practice matrilocal residence.

Women's Empowerment

Within the MLSFH data, we focus on three indicators of women's empowerment: marriage exit options, social independence, and financial autonomy. First, we measure a woman's *exit options* by her likelihood of saying that a woman can leave her husband for a variety of reasons. In particular, women were asked in 2004 whether "it is proper for a wife to leave her husband" if he does not support her and the children financially (46%), he beats her frequently (76%), he is sexually unfaithful (83%), she thinks he might be infected with AIDS (27%), he does not allow her to use family planning (26%), she thinks he might have an STD (29%), he cannot provide her with children (49%), or he doesn't sexually satisfy her (40%). We combined these eight individual answers into a composite index using an inverse covariance weighted method (Anderson, 2008). The eight items are positively correlated with a Cronbach's α of 0.63. Second, we measure a woman's *social independence* using two questions asked in 1998. The first asked whether it is acceptable for a woman to go to the market without her husband's permission (11%), and the second asked if it was acceptable to go to the clinic without her husband's permission (18%). We combined these two indicators into one indicating whether a woman thought it was acceptable

to go to either the market or the clinic without permission (21%). Third, we captured women's *financial autonomy* using a question from 1998 that asked whether the respondent had money of her own that she could spend without her husband's knowledge (16%).

These three indicators of women's empowerment are surprisingly uncorrelated. Overall support for women leaving their husbands is *negatively* correlated with social independence ($r = -0.07, p = 0.01$) and uncorrelated with financial autonomy ($r = 0.02, p = 0.49$). Social independence and financial autonomy are only weakly related ($r = 0.06, p = 0.06$).

Analyses: Matrilineality and Women's Empowerment

We first compare women from matrilineal groups (Chewa, Lomwe, Mapeza Ngoni, Yao) to those from patrilineal groups (Mpezeni Ngoni and Tumbuka). While matrilineal women were significantly more likely to support women leaving their husbands ($t = 10.7, p = 0.00$), they were *less* likely to support women's social independence ($t = 7.1, p = 0.00$) and to report having financial autonomy ($t = 1.6, p = 0.12$). However, such comparisons do not take into account other ethnic group level differences that are unrelated to kinship systems, such as the historically high rate of education among the Tumbuka (Vail and White, 1991).

We next examine the influence of the two individual-level indicators of matrilineality – matrilineal land inheritance and matrilineal residence – on the three measures of women's empowerment. Matrilineal land inheritance is associated with more support for women leaving their husbands ($t = 7.4, p = 0.00$) and greater financial autonomy ($t = 3.9, p = 0.00$), but less support for women's social independence ($t = 2.8, p = 0.01$). Similarly, matrilineal residence is associated with more support for women leaving their husbands ($t = 6.0, p = 0.00$) and greater financial autonomy ($t = 2.02, p = 0.04$), but less support for women's social independence ($t = 3.5, p = 0.01$).

To determine the relative importance of different matrilineal practices, we examine the correlation between different practices and women's empowerment within a regression framework in Tables 2 - 4. Standard errors are clustered at the ethnic group level in order to account for the possibility of intra-cluster correlation among respondents of the same ethnic group. While columns 1

and 2 in each table report the bivariate relationship between our predictors of interest and dependent variables, column 3 includes both land inheritance and residence. The positive contribution of matrilineal land inheritance to the dependent variable trumps any positive relationship with matrilocality. This finding is consistent with the literature that emphasizes the importance of land inheritance over matrilocality for female empowerment.

Table 2: Relationship between Matrilineal Practices and Justified in Leaving Husband (Index)

	(1)	(2)	(3)	(4)
Own Land through Matriline	0.262** (0.084)		0.205** (0.051)	0.196* (0.078)
Matrilocal Residence (Individual)		0.219* (0.098)	0.127 (0.074)	
Owens Land				0.184*** (0.028)
Constant	-0.065 (0.095)	-0.051 (0.102)	-0.089 (0.098)	-0.183* (0.080)
Observations	992	1001	988	992

OLS models with standard errors clustered at the ethnic group level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Relationship between Matrilineal Practices and Acceptable to Go to Clinic or Market w/o Husband Knowledge

	(1)	(2)	(3)	(4)
Own Land through Matriline	-0.071** (0.022)		-0.044** (0.017)	-0.023 (0.016)
Matrilocal Residence (Individual)		-0.084 (0.043)	-0.061 (0.044)	
Owens Land				-0.134** (0.039)
Constant	0.236*** (0.044)	0.242*** (0.045)	0.249*** (0.045)	0.322*** (0.052)
Observations	985	994	981	985

OLS models with standard errors clustered at the ethnic group level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

While Tables 2 and 4 yield anticipated results, the relationship between our independent variables of interest and social independence goes in the opposite direction as expected. This could

Table 4: Relationship between Matrilineal Practices and Has Own Money, No Spousal Control

	(1)	(2)	(3)	(4)
Own Land through Matriline	0.091*** (0.022)		0.082*** (0.011)	0.097** (0.025)
Matrilocal Residence (Individual)		0.055 (0.031)	0.018 (0.030)	
Owns Land				-0.014 (0.014)
Constant	0.129*** (0.020)	0.141*** (0.019)	0.125*** (0.023)	0.139*** (0.014)
Observations	991	1000	987	991

OLS models with standard errors clustered at the ethnic group level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

be due, however, to omitted variable bias. Matrilineal and patrilineal groups in Malawi are qualitatively different on other dimensions than kinship and marriage practices. For example, the Tumbuka, on average, are more highly educated and have higher wealth levels than other groups (see Vail and White, 1991, for a discussion of the historical roots of this ethnic-based inequality).¹¹ Because they are also the main patrilineal group in our sample, the results could be driven by differences in education and wealth rather than kinship and marriage practices. To investigate this possibility, we control for indicators of respondent's education and level of wealth in Table 5. Each column has a different dependent variable and replicates the multiple regressions in previous tables, adding indicators for education and wealth levels of the respondent.¹² While the main findings for exiting marriage and financial autonomy hold, the unexpected negative findings for social independence disappear when we include these controls.

A final question we examine in these data is whether it is the short-term access to resources or the longer-term expectation of resource entitlements that ultimately affects female empowerment. Because there is a significant proportion of women who report owning land through other mechanisms than inheritance through the matriline (about half), we are able to compare whether it

¹¹Within the MLSFH data, the Tumbuka and Mpezeni Ngoni are about one standard deviation more educated than others in our sample and about 0.75 standard deviations wealthier.

¹²Education is measured by the number of years of primary and secondary education the respondent self-reports and wealth is measured by a 5-point categorical variable constructed using the respondent's house and roof materials.

Table 5: Robustness to Controlling for Education and Wealth

	(1) Exit Marriage	(2) Social Independence	(3) Financial Autonomy
Own Land through Matriline	0.150*** (0.025)	-0.018 (0.026)	0.099*** (0.012)
Matrilocal Residence (Individual)	0.045 (0.038)	-0.024 (0.029)	0.032 (0.020)
Years of Education	-0.033* (0.014)	0.020*** (0.004)	0.014*** (0.003)
Wealth Level	-0.044** (0.017)	-0.002 (0.007)	-0.006 (0.017)
Constant	0.218*** (0.036)	0.160*** (0.019)	0.079 (0.041)
Observations	947	941	946

OLS models with standard errors clustered at the ethnic group level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

is simply the ownership of land, or the kinship practice of land inheritance through the matriline, that contributes most to the dependent variables of interest. Column 4 of Tables 2 - 4 suggests that matrilineal land inheritance has a positive relationship with the dependent variables over and above simply owning land. In the case of attitudes toward exiting marriage, both women who own land through other mechanisms (inherited through husband's kin, purchased, given by chief) and women who inherit land through the matriline are more likely to say a woman would be justified in leaving her husband. In the case of financial autonomy, however, it is only the women who inherit land through the matriline who are more likely to say they have money they can spend without spousal control.

Conclusion and Next Steps

Motivated by a persistent gender gap in civic and political participation across the African continent, we examine whether an under-explored but plausible determinant of female empowerment – matrilineality – systematically improves political and civic participation for women relative to

men. Combining ethnographic data on kinship systems with public opinion data from the Afro-barometer, we find evidence that matrilineality is strongly and significantly associated with smaller gender gaps in political engagement, political participation and civic participation. This is the first systematic, cross-national study to our knowledge that produces evidence that matrilineal kinship practices have notable positive effects on the status of women.

To speak to the theoretical literature about the key constraints to female participation in developing societies, we further examine the mechanisms through which matrilineal kinship is yielding these salutary effects. With survey data from matrilineal and patrilineal ethnic groups within Malawi, we study the relationship between adherence to matrilineal *practices* – rather than ethnic group categorizations of kinship systems – and outcomes that measure female empowerment. First, we find that inheritance of land through the matriline is a more important predictor of female empowerment than matrilineal residence. Second, we find that matrilineal inheritance of land has a positive effect on female empowerment over and above ownership of land for other reasons.

These findings have implications for interventions or policies to close the gender gap in political participation. Pure resource-based policies such as establishing micro-credit groups for women or subsidizing girls' schooling have sometimes failed because the one-time positive economic shock is stymied by asymmetric gender norms that counteract it. Changing norms via formal rules such as quotas for women in parliament or extending property rights to women often fail to address the informal barriers women face that might prevent them from realizing the full benefits of greater formal access. A key problem with understanding the impact of such short-term resource-based interventions or norms-based policies to address gender inequality is that changes may take generations to materialize. While most social science research does not afford us the ability to study such long-term impacts, matrilineality, an old and relatively stable institution, helps address this problem. We can conceive of matrilineality as a long-term program that infuses women with greater access to resources (material and social). We have shown that such long-term access, unlike many short-term programs that do similar things, has the potential to shift gender norms with favorable impacts on women.

As this project is in its early stages, we have a number of ideas about the next steps. We particularly welcome WGAPE feedback on these and other possibilities for how to move forward. First, our current analyses of the MLSFH data are quite preliminary. The models are clearly underspecified, but many of the control variables we are considering (e.g., education, income/wealth, etc.) may themselves be influenced by matrilineal kinship, land inheritance, and matrilineal residence. We are also not currently leveraging variation in kinship systems at the ethnic group level, since we are not sure how best to deal with the fact that there are many ways in which Malawian ethnic groups differ other than their kinship systems. In the cross-national analyses, group-level differences are at least partially accounted for by group random effects, but this only works with a larger number of groups. But, within Malawi, the MLSFH data only includes members of 5-6 different groups. To the degree that such other group-level differences affect men and women equally, the cross-national analyses also account for such differences by evaluating gender gaps in political and civic participation, effectively benchmarking women's participation against men's. However, two of our three female empowerment outcomes (social independence and financial autonomy) are only asked of women, and even if men's attitudes could help us deal with group-level differences in theory, men in the MLSFH data are all current or former husbands of the women respondents, providing a less clean benchmark against to compare women.

Second, the MLSFH data is very rich and we are only scratching the surface of what we might learn from it. In particular, the dataset is a panel and we could potentially take advantage of the data's longitudinal structure. There are also many more outcomes we could look at, including (gender differences in) education among respondents, support for girls' education by parents, family planning, divorce rates, and many others.

Third, evaluating our central argument – that matrilineal kinship affects women's empowerment and their engagement in political and civic life – requires that we think of the assignment of matrilineality kinship as exogenous to our outcomes of interest. However, it may be that more gender equitable ethnic groups were more likely to adopt or retain matrilineality. Research focused on the “causes” of matrilineal kinship practices tends to assume that ancestral Bantu societies were

all matrilineal, and then focus on what factors caused a shift from matrilineality to patrilineality for some groups but not others. Leading contenders include the introduction of cattle (Holden and Mace, 2003), conquest of matrilineal groups by patrilineal ones (Phiri, 1983), the presence of Christian missionaries (Phiri, 1983; Schatz, 2002), and particular colonial policies (Phiri, 1983; Schatz, 2002). All of these potential sources of matrilineal maintenance seem at least somewhat exogenous to pre-existing gender norms. Should we simply argue this point, or attempt to leverage these factors using an instrumental variable approach?

Finally, we received a small grant to collect original data for this project within Malawi, and we would appreciate feedback on how best to utilize this opportunity. Our current plan is conduct semi-structured interviews in places with different combinations of our variables of interest: members of a matrilineal group that practice neither matrilineal land inheritance nor matrilocality, members of matrilineal groups that practice one or both, and members of patrilineal groups that practice neither, one or both. We could leverage the fact that some ethnic groups' practices have changed at different points in time and so experience different "dosages" of matrilineality. We will ask each respondent, both men and women, how land ownership (or lack thereof) and residence patterns (and perhaps other benefits of matrilineality) affect women's social and economic opportunities. This is only one option of how the grant could be used. We are interested in what issues with our current empirical approach could be most effectively addressed through the collection of original data.

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On-Line Appendices

A Matrilineality and Political/Civic Behavior in Malawi

2

A Matrilineality and Political/Civic Behavior in Malawi

Figure A.1: Gender Gaps by Descent Rule in Malawi

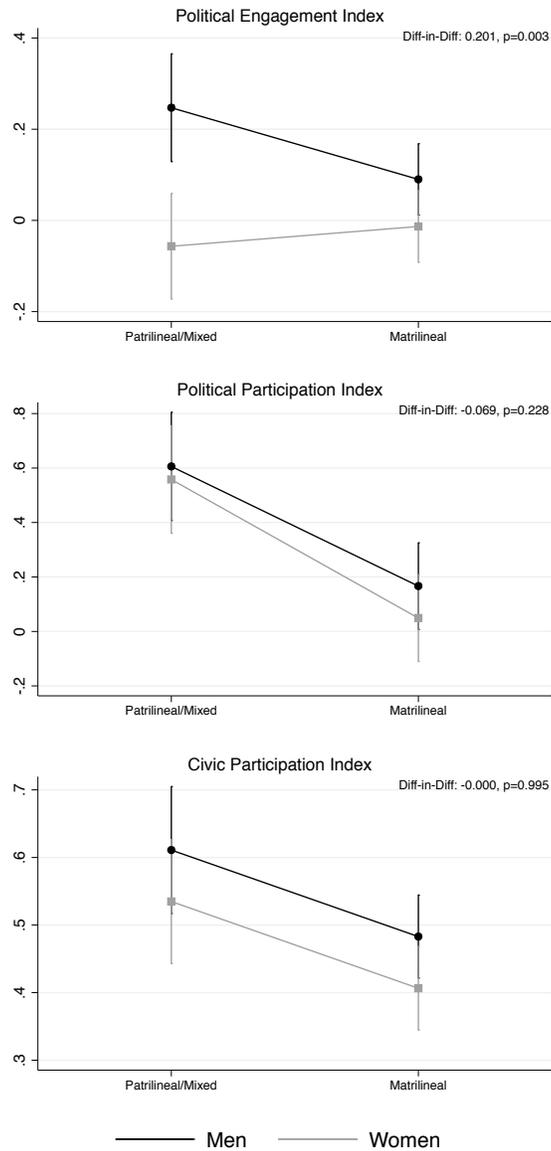


Figure A.2: Gender Gaps in Political Engagement by Descent Rule in Malawi

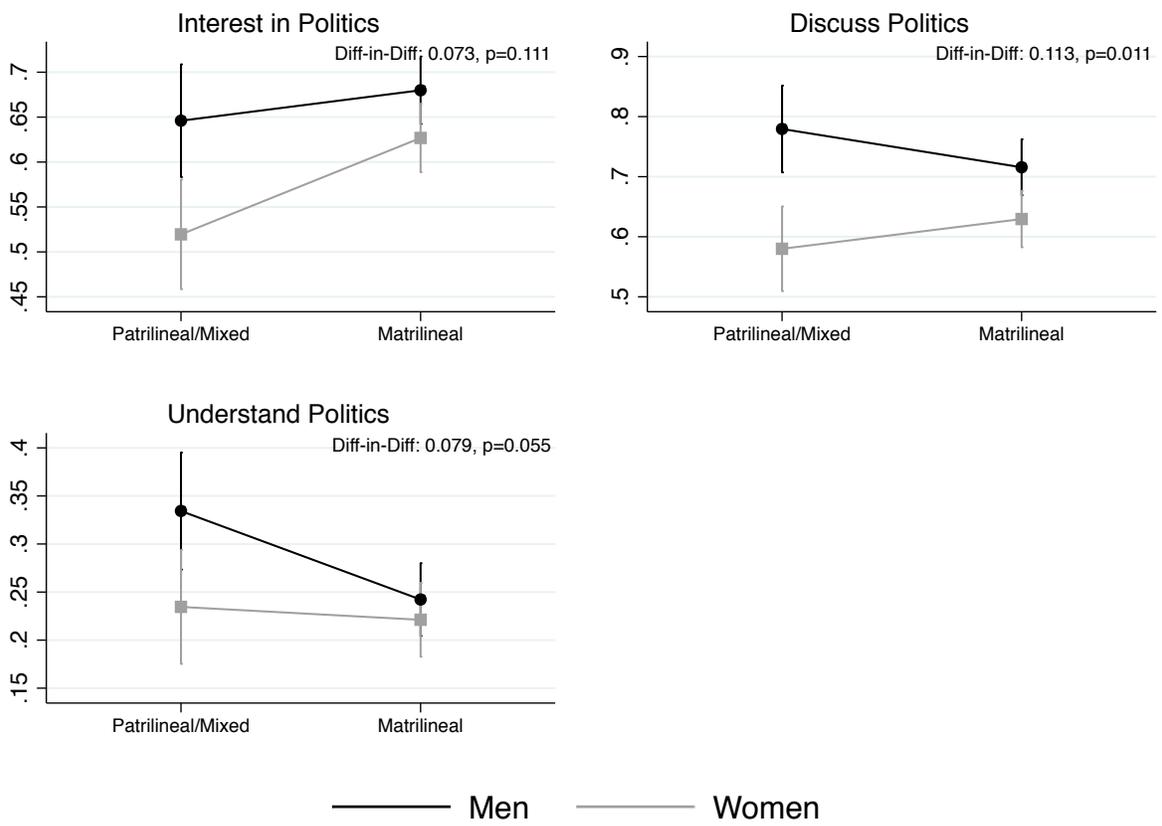


Figure A.3: Gender Gaps in Political Participation by Descent Rule in Malawi

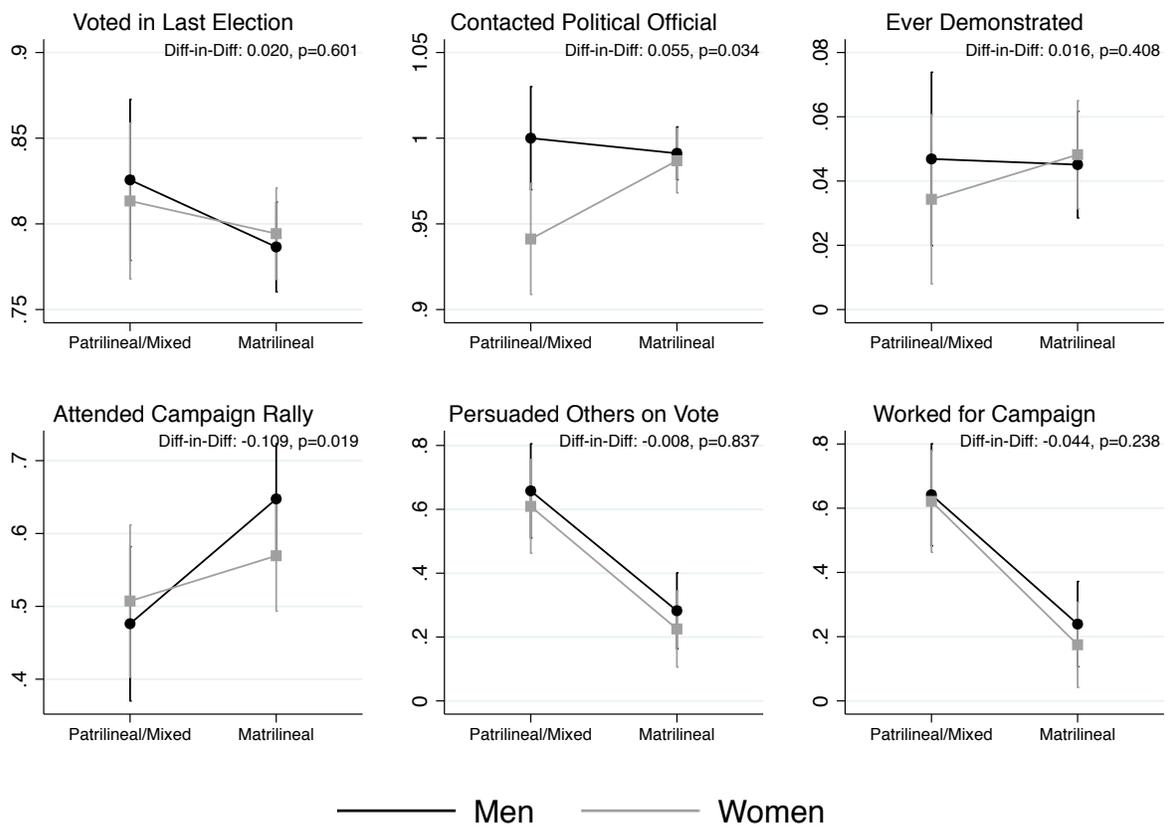


Figure A.4: Gender Gaps in Civic Participation by Descent Rule in Malawi

