The Ethnicity-Policy Preference Link in Sub-Saharan Africa

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Abstract

Scholars have begun to investigate the mechanisms that link ethnic diversity to low levels of public goods provision but have paid only minimal attention to the role of preferences for public policies. On the one hand, some argue that ethnic groups hold culturally distinctive preferences for goods and policies, and that such differences impede effective policy-making, but these studies provide little evidence to support this claim. Others argue that preferences do not vary systematically across ethnic groups, but again the evidence is limited. In this paper, we engage in a systematic exploration of the link between ethnic identity and preferences for public policies through a series of individual- and aggregated- analyses of Afrobarometer survey data from 18 Sub-Saharan African countries. Matching techniques are also used at times to check if results are model dependent. We find that in most countries, preferences do vary based on ethnic group membership. This variation is not merely an expression of individual-level socio-economic differences or of group-level cultural differences. Instead, we suggest that citizens use ethnicity as a group heuristic for evaluating public policies in a few predictable ways: We find more persistent disagreement about public policies among individuals from different, politically relevant ethnic groups, and where group disparities of wealth are high.
I. Introduction

A large and influential body of scholarship has demonstrated that ethnic heterogeneity is associated with both bad policies and poor development outcomes across a range of sectors and in polities of varied scale (Easterly and Levine 1997; Miguel 2004; Alesina et al. 1999; Putnam 2007; Montalvo and Reynal-Querol 2005). While nuances have emerged concerning exactly how to conceptualize or to measure ethnic diversity, including an increasing focus on socially or politically relevant ethnic categories (Alesina et al. 2003; Posner 2004a; Wimmer, Cederman and Min 2009) and on the degree of economic inequality across ethnic groups (Baldwin and Huber 2010), the overall pattern is consistent: ethnically diverse societies are less likely to enact development-enhancing public policies and to provide public goods\(^1\), and they tend to grow more slowly.

But what is the mechanism that links ethnic diversity to bad policies and poor development outcomes? Specifically, is the link preference diversity? Within studies identifying the negative consequences associated with ethnic diversity, scholars have often posited or implicitly assumed that ethnic groups have different preferences over public policies. Easterly and Levine (1997: 1215-6) identify several examples in which scholars have claimed that ethnic groups will have different tastes for goods and services provided by governments. Other scholars have advocated decentralization, particularly in ethnically diverse countries, on the grounds that smaller and more localized groups are more likely to share preferences for public goods, making it easier to formulate and implement public policies (Wibbels 2006).

But many scholars argue that ethnic group membership is not associated with policy

\(^1\) Consistent with the literature on this topic, our use of the term “public goods,” implies only those goods and services that are meant to be widely welfare enhancing over the long-term, as contrasted with policies that serve narrow, targeted interests.
preferences, focusing instead on the strategic nature of ethnic politics to explain the relationship between ethnic diversity and poor development outcomes. For example, Bates (1974), Olzak (1992), Chandra (2004) and Posner (2005) describe ethnic political competition as primarily a battle over who gets to benefit from public policies (the spoils of patronage) rather than over what those public policy priorities should be. Such works generally assume a greater universality to individuals’ preferences over public policies. In these models, the negative consequences of ethnic politics have more to do with ethnic nepotism.

A few recent studies have attempted to test the preference mechanism more directly but have found little evidence in its favor. Hopkins (2009), for instance, argues that ethnic diversification (rather than high levels of diversity) lowers local public spending by destabilizing expectations about future returns rather than by changing the constellation of citizen preferences. Habyarimana et al. (2009) show that there are no significant ethnic group differences in the prioritization of security, drainage maintenance, and garbage collection among a representative sample of individuals living in four parishes of Kampala, Uganda.\(^2\) That negative finding helps motivate their inquiry in to the technical, strategic, and norm-based foundations of collective action among co-ethnics.

While these are both well-designed and well-executed studies, their findings are not sufficient to rule out the potentially important role of preferences in linking ethnic diversity to public policies and developmental outcomes across the wide range of contexts in which the broader, macro-level pattern has persisted. In both cases, the findings are either based on an indirect test or based on analyses of just one or two localities within a single country. For

\(^2\)An f-test failed to reject the null hypothesis of no systematic variation in preferences across ethnic groups in all models. The few weak differences between groups washed away once fixed effects for location were introduced. The authors also demonstrate, within the context of a research laboratory, that subjects were not more generous toward co-ethnics than towards individuals of other ethnic groups, casting doubt on an in-group altruism hypothesis. We do not consider this mechanism in our research.
example, Hopkins’ (2009) study does not measure preferences directly, but rules out the divergent preferences hypothesis based on the finding that tax votes across localities in two American states did not vary in magnitude according to levels of ethnic diversity. In the case of the Habyarimana et al. (2009) study, the findings are based on a sample of respondents (n=185 to 236, depending on the question) in just four parishes of the capital of Uganda.

While it would be tempting to rest the inquiry with such findings – indeed, the idea that citizens share “universal” norms and tastes is normatively appealing – they fly in the face of strong theoretical and empirical foundations. Not only is it conventional wisdom in the African context that ethnic groups have distinct tastes, but a deep social psychological literature has shown how group differences, including ethnic differences, routinely structure cognitions and preferences with respect to distributional concerns. Most prominently scholars contributing to the development of social identity theory (SIT), have highlighted that individuals derive at least two benefits from group categorization that ought to be relevant for the formation of preferences: uncertainty reduction and self-enhancement (Hogg and Abrams 1999: 120). When individuals are able to easily identify with a relevant group, they can make choices and form preferences more easily by assessing that group and its interests – by modeling a group “prototype” (Hogg and Abrams 1999). Behavioral economists such as Akerlof and Kranton (2000) build on the minimum group paradigm – i.e., that only superficial distinctions are necessary to constitute groups – and argue that group identity affects individual utility functions. Among other things, individuals identify their position and needs as members of a group.

Particularly in the American context, scholars have argued that ethnicity can serve as a cognitive heuristic for interpreting problems and policies. Dawson (1994, 2001) argues that African-Americans are consistently influenced by perception of a “linked fate,” such that any
individual who identifies as such will take into account the needs and policy implications with respect to the group rather than just considering her individual circumstances. Similarly, if we think about ethnic groups as extended networks (Christakis and Fowler 2009; Fowler and Christakis 2010), it would be reasonable to predict that information would flow with groups and that individual members might form similar preferences over public policies as a result.

In light of these theoretical arguments, we revisit the possible link between ethnic group membership and policy preferences by exploring the relationship between the two in sub-Saharan Africa – the region with the highest levels of ethnic diversity, and where ethnic conflict has been routinely blamed as a root cause of under-development (Easterly and Levine 1997; Posner 2004). The primary task we set for ourselves is to see whether there is strong variation in policy priorities across ethnic groups once we examine a broader swath of data than previous studies have done. A supplemental task is to offer possible explanations for any association between ethnic group membership and policy priorities, which we do in the second half of the paper. We argue that the association is not merely an expression of individual-level socio-economic differences or of group-level cultural differences. Instead, we suggest that citizens use ethnicity as a group heuristic for evaluating public policies in a couple of predictable ways: We find more persistent disagreement about public policies among individuals from different, politically relevant ethnic groups, and where group disparities of wealth are high.

We stress from the outset, however, that our main claim – that policy preferences do vary across ethnic groups – is not causal in a strict sense. Although, for instance, there are reasons to believe that ethnic group membership drives policy preferences and not the other way around, our goal is to revisit the plausibility of a link between ethnic diversity and public policymaking, since that plausibility has been recently questioned. Establishing a strong association between
ethnic group membership and policy preferences accomplishes this goal.

The paper proceeds as follows. First, we describe our data. Second, we show that indicators of ethnic group membership are routinely jointly significant in models of policy prioritization, contrary to the findings in Habyarimana et al. (2009). Having demonstrated that there is some association between ethnic group membership and policy priorities in all of the countries we examine, we turn to possible explanations for that association. In the third section, we demonstrate that the association is at least partially independent of individual-level socio-economic factors. In the fourth section, we show that the relationship between ethnic group membership and policy preferences is not merely an expression of cultural differences. In the fifth section, we turn to the heuristic bases of ethnic difference and point to the role of political relevance and inter-group wealth disparities as a basis for preference divergences. In the sixth section, we show that our results are not sensitive to the use of a subjective measure of identity. In the seventh section, we link our micro-level findings to the well-established macro-level correlation, showing that ethnic heterogeneity is also associated preference heterogeneity at the country level. Finally, we conclude by highlighting opportunities for future research.

II. Research design and description of data

For our analysis, we use the third wave of the 18-country Afrobarometer survey conducted in 2005-6. Although political scientists are increasingly using experimental methods to generate causal inferences about a range of related outcomes and processes, ultimately, our explanatory variable is ethnic group membership, which poses certain challenges for experimental control. While it is possible to manipulate and to randomly assign the perception of another individual’s ethnicity (as Habyarimana et al. 2009 do), or to prime one’s strength of
identification (Mendelberg 2001; Valentino and Hutchings 2002), it is difficult to randomly assign real-world ethnic identities. Moreover, if the development of preferences takes place over a long period of time, short-term experimental manipulation may not be an appropriate mode of investigation. If there is a tradeoff between internal and external validity when considering experimental and observational research, in this case, we opt for the latter, remembering as well the consistently strong laboratory-based experimental findings with respect to the relationship between social identities and preferences (e.g., Chen and Li 2009). We use a mix of statistical analyses at different levels of analysis, and, in places, we employ matching methods as a robustness check for model specification. We provide summary statistics for each of the variables, for each country, in an online appendix.

As the primary measure of our dependent variable (policy preferences), we consider responses to the question, “In your opinion, what are the most important problems facing this country that government should address?” Respondents were allowed to give three open-ended responses. Across the 18 African countries, a total of 31 policy priorities were identified with numerical codes. We interpret the first response as the respondent’s top priority, but we also created separate binary dependent variables for each of the 31 problem responses indicating whether a respondent listed that issue among any of her top three policy priorities.

To be sure that our results are not sensitive to this approach to measuring preferences, and to consider the substantively important policy of HIV/AIDS in Sub-Saharan Africa, we also analyze responses to an additional question that asks individuals to make a choice between allocating government resources to AIDS and allocating resources to other policies like education, and our dummy variable is coded 1 when individuals choose AIDS over the
alternative.

Like Habyarimana et al. (2009: 36-8), when studying the effects of ethnicity, we face substantive questions about how to conceptualize and measure individual membership, the implications of which we discuss below. As our primary measure of ethnic identity, we use individual responses to the question, “What is your tribe? You know, your ethnic or cultural group.” This question was not asked in Zimbabwe, and in the case of Cape Verde, there were so few group-specific responses – 39 percent said their only identity was a national one; and 42 percent answered “don’t know” – that we do not analyze the relationship between ethnic group membership and policy priorities in those countries.

However, in addition to this subjective measure, we also use a more “ascriptive” approach of classifying individuals based on their responses to questions about traits that would lead others to classify them as members of that group. The survey question used for this category asked, “Which (country) language is your home language?” While individuals may make some subjective choice in answering this question, particularly if multiple languages are spoken in the home, the question does not ask respondents specifically to conceptualize a “group” affiliation. As discussed below, in most countries, the correlation between home language and subjective identity was so tight that there was virtually no difference between the two. However, for the few countries where “objective” information did not match subjective identities as closely, we exploit that distinction to compare the relative effects of these alternative framings of identity. Section

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3 Specifically, they were asked, “Which of these statements is closest to your view? … A: The government should devote many more resources to combating AIDS, even if this means that less money is spent on things like education. B: There are many other problems facing this country beside AIDS; even if people are dying in large numbers, the government needs to keep its focus on solving other problems.” Respondents could choose: 1=Agree Very Strongly with A, 2=Agree with A, 3=Agree with B, 4=Agree Very Strongly with B, 5=Agree with Neither. To keep the interpretation of the analyses straightforward, we differentiate only between agreement and disagreement with statement A, but the substantive results are unchanged if we use graded measures or include response 5 as an intermediate category.
five presents these analyses.

We analyze only those individuals who identified themselves with ethnic groups that contained at least 50 respondents in the Afrobarometer survey. For a series of analyses, we estimate various group means, such as group wealth, and for sub-samples of fewer than 50 respondents, we concluded that the estimation of group means would be too unreliable.

In suggesting possible explanations for a link between ethnic group membership and policy preferences in section four, we use the Ethnic Power Relations dataset introduced in Wimmer et al. (2009), which identifies politically relevant groups and their power status based on an expert survey. Specifically, they highlight that within our sample, five countries contain no politically relevant ethnic groups: Botswana, Cape Verde, Lesotho, Madagascar, and Tanzania—suggesting that ethnic groups are not organized in the political arena in a manner that allows them to compete explicitly against each other for power.

We also consider a number of individual-level covariates reported on the surveys when assessing whether the association between ethnic group membership and policy preferences is a result of socio-economic differences across individuals. We create a dummy variable for female; an age variable (logged); a 10-point scale for education, which ranges from no formal schooling (0) to post-graduate education (9); a dummy variable for whether the respondent currently holds a paying job (either part-time or full-time); a dummy variable for whether the respondent lives in a rural (as opposed to urban) area. Following previous analyses of Afrobarometer data (Robinson 2009), we also create a 4-point scale of wealth whereby a

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4 Lars-Erik Cederman; Brian Min; Andreas Wimmer, 2009-05-01, "Ethnic Power Relations dataset", http://hdl.handle.net/1902.1/11796 UNF:5:k4xxXC2ASI204QZ4jqvUrQ== V1 [Version]

5 Posner (2004a) identifies the small San group in Botswana in his classification of politically relevant groups, but absent a second politically relevant group, it is analytically equivalent to Wimmer et al. (2009) who identify no politically relevant ethnic groups. Posner (2004a) also identifies Cape Verde, Lesotho, and Madagascar as countries with no politically relevant groups; but he does identify politically relevant groups in Tanzania.
respondent receives a 3 if s/he reports owning a radio, a television and a car. 2 points indicates that the respondent owns a radio and a television; 1 point that s/he owns only a radio; and 0 indicates that s/he does not even own a radio. This measure has been found to be more reliable than coding wealth by using questions about numerical cash income. In addition, for the initial logistical analyses that consider each policy priority separately, we sometimes use a dummy variable for whether the respondent reported being a farmer/farm worker, as well as a 3-point scale for whether s/he reported being an active member, inactive member or not a member of a union. Respondents also report how many friends or close relatives they know who have died of AIDS as well as the number of times in the past year they have been the victim of a crime (either theft or physical attack) or gone hungry. Finally, we develop a 5-point measure of a respondent’s access to the news, based on how often (4 = every day, 0 = never) they reported getting their news from the television, radio or newspaper in order to control for general awareness of public policy problems.

Particularly because individuals identifiable with particular ethnic groups tend to live near to one another, and because they may have access to different local services, we control for the level of services observed by survey enumerators, including the presence or absence within the enumeration area of a school, post office, police station, electric grid, piped water system, accessible sewage system, recreation facilities, or health clinic. We create a nine-point scale (0-9) by assigning one point for each state facility observed by the enumerator.

III. Tests for an association between ethnic identity and policy preferences

As a first test, we consider ethnic group membership to be associated with policy preferences where ethnic group dummy variables are jointly statistically significant (with a p-value for the chi-squared statistic less than 0.05) in models of policy choice. We also consider
ethnic group membership to be associated with policy priorities where the predicted likelihood of prioritizing a given policy for a given group of respondents is statistically distinguishable from that of the reference group. (Unless otherwise noted, in the discussion that follows, the standard for judging statistical significance of group differences is that a 95 percent confidence interval around the estimated difference does not include zero.) For comparison, the Habyarimana et al. (2009: 81) study takes a similar approach but finds that ethnic dummies are never jointly significant in their models of policy choice. (They consider three policies in three separate OLS regressions.) Furthermore, across the three regression models, they find just two statistically significant differences between an ethnic group and the base category (the Baganda). Since each of the three models includes 9 ethnic groups besides the base category, there are 27 potential differences, of which just 2 (7.4%) are significant.

By contrast, in analogous analyses, we find substantial evidence that ethnic group membership is associated with policy preferences. For example, in Nigeria, 59 percent of Igbo identified unemployment as one of the top three priorities, while 47 percent of Yoruba and 37 percent of Hausa did so, and these differences are statistically different from zero. To conduct an approximate replication of the Habyarimana et al. (2009) approach, we first conducted a series of separate logistic analyses to estimate the likelihood of choosing each of the eight policies that were identified most often in each national sample, using the largest ethnic group in each country as the excluded category. Ethnic group dummy variables were routinely jointly significant at conventional levels. When considering responses to the question about allocating resources to AIDS, for instance, ethnic group dummies were jointly significant in 14 out of 16 of the models, or 88 percent. When modeling first responses to the open-ended policy priority question, ethnic dummy variables were jointly significant in 38% of the models and when modeling the
appearance of an issue among any of the respondent’s top three policy priorities, ethnic dummy variables were jointly significant in 63% of the models. Tables 1a and 1b show the p-values for the chi-squared statistics for each model of the open-ended responses. The number of statistically significant group differences are sensitive to the selection of the reference category, but across the 128 models of responses to the open-ended question (eight issues for each of the 16 countries), we further find 238 statistically significant differences between ethnic groups and the base category, representing 35% of the possible group differences in the models.

We have not yet introduced any variables other than ethnic group dummies into our analyses, but based on this simple analysis alone, it is clear that there is a link between ethnicity and preferences for public policies. This finding is consistent with a broader theory linking ethnic diversity to policy conflict and paralysis. Even if other factors partially mitigate or wash away the association in subsequent statistical analyses, it would still be the case that citizen preferences for public goods are often ethnically distinctive. Yet, as we show in the remainder of the paper, the strength of those relationships are only partially attenuated (and in some places strengthened) with the addition of controls or alternative estimation strategies.

Individual- and contextual-controls; alternate model specifications

The preliminary results presented above immediately imply several follow-up questions, including whether ethnic labels are largely signposts for clusters of individual-level characteristics, which in turn drive policy preferences. Taking again the example from Nigeria, if a much larger share of Igbo respondents were unemployed as compared with Hausa, and if unemployed individuals tend to prioritize that condition as a problem, we would want to know if ethnic identity had any effect on individual preferences beyond their own employment status. In
the analyses that follow, we include the various individual-level controls described above.

We also attempt to address the possible concern that the issue-by-issue logit analyses presented above do not fully capture the underlying dynamic of making tradeoffs that is inherent in any question concerning policy priorities. While the Afrobarometer survey did not list a set of possible options for respondents, our concern is with the factors that drive preference (in)coherence, so for subsequent analyses we fit a multinomial logistic model for each country. We identify the three most popular issues at the national level, and for each individual we investigate her likelihood of selecting those issues as her first-mentioned priority, relative to selecting any other issue. As in the earlier analyses, we use the largest ethnic group as the base category. We present estimates from multinomial logistic models run country by country, rather than results from a pooled, multilevel multinomial model. Country-by-country findings are more directly comparable to extant analyses and to our analyses in the last section. The dependent variable could also be considered to be somewhat different across countries, since the list of policy priorities actually mentioned differs quite a bit across each.

Figure 1 presents results from the country-by-country multinomial logistic regressions, which include both ethnic group dummies and individual-level covariates. Figure 1 graphs the estimated differences between the predicted probability of selecting one the top three most popular issues as a first priority for a member of the reference group and the predicted probability of selecting that same issue for a member of each of the other ethnic groups. Individual level covariates are held at their means to estimate these differences. Because we are only interested in the magnitude, and not the direction, of differences in predicted probabilities, we consider only the absolute values of those estimates. Where the bars do not cross the zero line, the 95% confidence interval around estimated difference does not include zero. Figure 1
shows estimated group differences for three policy issues in 16 countries, for a total of 254 estimated differences. A full 19 percent (of 254 estimates) were statistically different from zero (Figure 1). Moreover, we find that in 14 of the 16 countries, at least one ethnic group exhibited distinctive preferences for at least one of the top three priorities. In fact, in six of the countries, we found ethnically distinctive preferences for all three of the most widely reported priorities; in seven of the countries, there were ethnic distinctions for two of the top issues; and for two countries, ethnic distinctions emerged for over just one issue. For country-issues where preferences were ethnically distinctive, the maximal change in predicted likelihood attributable to ethnic difference ranged from 6 percent in Zambia to 27 percent in Uganda. Figure 2 shows the group difference for each country-issue for which the estimated lower bound of the 95% confidence interval was furthest from zero.⁶

Returning to the results analyzing responses to the question about allocating government resources to HIV/AIDS, we find similar results. Figure 3 shows the estimated group differences in the likelihood of wanting to allocate more resources to HIV/AIDS across countries. 24 out of the 78 possible estimates (31%) are statistically significant. The average magnitude of the estimated differences is 0.14, and the magnitudes range from 0.01 to 0.42.

Again, it is worth reiterating that these are the results net of the effect of socio-economic factors, such as individual-level wealth, education, urban/rural residency, gender and access to local government services. Because there are large socio-economic differences between certain ethnic groups, estimates of the association between ethnic group membership per se and policy priorities are attenuated by individual-level differences. For example, the estimates with

⁶ Alternative modeling decisions, including selection of reference group, would lead to slightly different results. In most cases, ours is a relatively conservative approach because the largest group in each country should be closest to the country’s mean policy priority profile, decreasing the likelihood of divergence from other groups. In other words, in each country, there may be other group dyads that diverge even more.
individual- and area-level controls, we do not find a statistically significant difference between Kikuyu and Kalenjin in terms of their prioritization of education, even though only 3.9% of the former and 10.5% of the latter indicated that issue as their top priority – a difference that is clearly significant in a two-sample t-test. Many Kikuyus, however, are richer and better educated than many Kalenjins, which may account for the difference in policy priorities across groups.

In recent years, scholars have highlighted that estimates of observational data can be sensitive to model specification, and offer matching methods as a possible solution to some types of sensitivity (Ho et al. 2007). The previous analyses considered the entire sample of respondents in the Afrobarometer survey, excluding only those with missing observations on relevant covariates. As a result, some respondents in the base category group may have exhibited wildly different characteristics than respondents from any of the given comparison groups, forcing extrapolation in constructing the estimates. To check for sensitivity to model specification, we conducted pre-estimation matching in some of the countries where an adequate balance across individual-covariates could be achieved between the base category group (the “control” group) and each of the other ethnic groups in that country (the “treatment” groups). Uganda acted as one such country. Each ethnic (“treatment”) group was matched to the base category (“control” group, Baganda) based on individual wealth, education, gender, access to local services, urban/rural residency and employment status. Where sizeable sample sizes (n>250) could be generated using nearest neighbor matching, that technique was used. Otherwise, optimal matching was used to generate the sample sizes, adjudicating between adequate balance and larger sample sizes. Differences in the predicted probability of choosing each of the top three

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7 Robustness checks involving interpolation to deal with missing data may be conducted at a later stage.

8 Adequate balance means here that the mean of each of the covariates in the control group in the matched sample differed by no more than one third of a standard deviation from the mean of that covariate in the treatment group in that sample.
issues as a first priority was then estimated in a multinomial logit model (using “Zelig”) including those same individual-level covariates. In figure 4, we compare the estimates for Uganda from the multinomial logit analyses described above with the estimates using pre-estimating matching. In most cases, the estimates are extremely close in magnitude and in the size of standard errors. In only three cases did matching reduce the statistical significance of the estimated difference, and one estimated difference was statistically significant with matching where it was not using straight multinomial logit. These results suggests that our findings are not highly sensitive to the type of model dependence created by having “control” units far outside the range of “treated” units.

In order to evaluate our findings from the multinomial logit models further, it is also useful to compare the estimated ethnic group differences in policy preferences relative to those associated with individual socio-economic characteristics. From the multinomial logistic analyses, we estimated 48 coefficients (regarding 3 issues for each of 16 countries) for each of the following individual-level covariates: gender, education, wealth, employment status, urban/rural and access to local services. Again, using a 95% confidence interval to judge statistical significance, 15% of the coefficients for gender are statistically significant; 33% for education; 10% for individual wealth; 19% for employment status; 31% for urban/rural; and 17% for local services. And we find that in 11 of the 16 countries, respondents’ education and urban/rural residency were significantly associated with the selection of at least one of the top three issue areas. Employment status was significantly associated with the selection of at least one of the top three issue areas in 7 out of 16 countries. Access to local services was significantly associated with the selection of at least one of the top three issue areas in 6 out of the 16

9 In the case of education, the covariate with the most consistent predictive power, 62 percent of the logit analyses that include only education as a predictor variable were statistically different from the “null” model with no regressors.
countries. Gender and individual wealth were significantly associated with the selection of at least one of the top three issue areas in only 5 out of 16 countries. Thus, ethnic group membership is associated with policy preferences more frequently across these African countries than other sources of individual diversity.

At the outset, we highlighted our justifications for country-by-country analyses with ethnic group dummies, but we note that results from a three level (individual, group, country) multinomial model (not reported here) support the main conclusions above. For instance, without including the individual-level socio-economic covariates, 8% of the variance in respondents’ first priorities (using all possible 31 categories from the open-ended question) can be explained by ethnic group membership. Including individual-level covariates (wealth, employment status, rural residency, education, gender, access to local services) reduces this percentage only slightly, to 7%. The estimated percentage of variance in policy preferences explained by ethnic groups is statistically different from zero both with and without the inclusion of individual-level covariates. While previous studies have concluded that ethnic group membership does not explain any of the variation in policy preferences, all of the above approaches demonstrate that it does.

IV. Towards explanations of the ethnicity-preferences link

So far, we have demonstrated that ethnicity is strongly associated with policy preferences in many Sub-Saharan African countries and that this association is only partially due to individual-level differences. It is worth probing further to try to understand more about the nature of the group effect on individual preferences. Specifically, why would two individuals from the same country, with otherwise similar socio-economic profiles and enjoying similar levels of government services differ in their preferences for public policies simply because they
come from or identify with different ethnic groups? One plausible explanation is the “minimal group” model of social identity. As discussed earlier, even the most superficial and arbitrary of group divisions have been shown to generate substantive emotional and cognitive distinctions across groups within various experimental settings, and it may simply be the case that ethnicity, as a well-established marker of difference in certain settings, generates its power from the creation of in-group/out-group dynamics. Indeed, one of the seminal scholars in the study of comparative ethnic politics, Frederick Barth (1969) argued that the content of ethnic groups was largely irrelevant, and that ultimately what mattered for conflict was the degree to which groups maintained substantial boundaries.

But before jumping to the minimal group paradigm as the explanation for the ethnicity-preference link, we consider several issues that have been central to the study of comparative ethnic politics in an attempt to hone in on what drives preference divergence. While one may be able to identify individual examples of any of the following at work within a particular context, we seek to identify the best overall model of ethnic group membership as related to preferences for public policies in Sub-Saharan Africa. To do so, we consider the possible roles of “culture”, political power, and the material conditions of groups.

**Culture**

Our first concern is whether the ethnicity-policy link is primarily a cultural phenomenon. That is, do the customs and values associated with an ethnic group result in the socialization of members to want particular goods and policies? In certain cases, this is almost surely correct: Muslims are likely to express different preferences for policies with respect to alcohol consumption than non-Muslims simply because of doctrinal prohibitions against consumption. But we consider here whether the ethnicity-as-culture hypothesis also holds with respect to more
general public policies, such as those relating to health, education, redistribution, security, etc. Some cultures may simply value education, health, or income equality more than others regardless of the political context.

If this were true, we should observe similar configurations of policy preferences among group members who happen to live in different states. Within the sample of Afrobarometer respondents in the 2005-2006 wave, there are a handful of groups that happen also to span political borders: the Chewas in Zambia and Malawi, the Yorubas in Nigeria and Benin, and the Luos in Kenya and Uganda. If patterns of policy prioritization are culturally driven, then the respondents who belong to the same ethnic group but happen to live in different countries should report similar configurations of preferences over government policy. If, on the other hand, differences are due to the political context, and if we think of the political borders in sub-Saharan Africa as fairly randomly set (McCauley and Posner 2007), then we would expect to see differences across borders in terms of the likelihood that members of the same group prioritize certain public policies. In this sense, we treat the “assignment” of co-ethnics to different countries as akin to a natural experiment (Posner 2004b).

Figure 5 presents the variation in an individual’s predicted probability of prioritizing policy issues, comparing members of the same ethnic group across political borders (i.e. comparing responses from Yorubas in Benin to Yorubas in Nigeria, Chewas in Malawi to responses from Chewas in Zambia, Luos in Uganda to Luos in Kenya), and controlling for a battery of individual-level covariates. Results are shown for the eight issue areas most prioritized in the two countries that share an ethnic group (e.g. the eight issue areas most highly prioritized by respondents in Benin and in Nigeria, the eight issue areas most highly prioritized in Zambia and Malawi, etc.). In 15 out of the 24 models shown, policy preferences diverge among co-
ethnics who are citizens of different states. If the cultural differences hypothesis were a strong one, we should not observe these differences across groups that span political borders.

**Political relevance**

A second, more plausible, source of ethnic preference divergence concerns the political relevance of ethnic groups (Wimmer et.al.2009; Posner 2004). That is, even for identifiable ethnic groups, there may be a lack of organization or salience in the social or political arenas. Only some of the groups, and not others, actively compete for political power and/or are targeted for exclusion by the state. It stands to reason that for individuals who identify with particular ethnic groups that participate in political campaigns and/or that are routinely mentioned in the media, there ought to be greater coherence with respect to their policy preferences. Through these organizational channels, leaders ought to be able to signal their group needs with much greater ease. Moreover, we should expect that such discourse would highlight needs and preferences that are distinct from those of other relevant ethnic groups. Thus, we ought to find sharper preference distinctions between groups that are politically relevant with a given country.

To explore the effects of political relevance, we reflect on the multinomial logit results above and ask whether they are conditioned on the relevance of ethnic categories in the first place – as observed by the formation of ethnic parties and/or mobilized ethnic social movements. Recall that figure 1 shows estimated differences across groups in the predicted probability of selecting the top three policy issues in a country, and 49 of the 254 (19%) estimated differences were significantly different from zero. To explore whether political relevance explains which estimates remained significant at conventional levels even controlling for individual-level differences, we split the 254 estimates into those that refer to two politically relevant ethnic
groups and those that do not. We do so based on the categorization of groups in Wimmer et al. (2009). This yields 152 estimated differences referring to two politically relevant ethnic groups and 102 estimated differences referring to dyads with at least one non-politically relevant group. When comparing the effect of being in a politically relevant ethnic group to another politically relevant group, we found that 39 of 152 (25.7%) estimates were statistically significant, whereas when at least one ethnic group was not politically relevant, only 9 of 102 estimates (8.8%) were statistically significant. A two-sample t-test suggests that the distribution of statistically significant differences between these two groups is itself statistically significant (p=.004).

Political relevance is not a pre-requisite for preference divergence, but differences in policy prioritization may be more likely to be found among individuals from different politically relevant ethnic groups. To be certain, the very reason that ethnic groups become politically relevant could be because they pass a threshold of differences in terms of policy preferences. Alternatively, ethno-political competition for power could itself be an exogenous influence on policy preference formation, as competing ethnic leaders could emphasize the alternative perspectives in their political struggles, which are subsequently internalized among group members. Such concerns would need to be addressed in future research.

**Materially-based group heuristics**

A third question concerns whether ethnic group membership is more likely to be associated with policy preferences even after controlling for individual-level characteristics where there are material inequalities across groups. If individuals use group characteristics as a heuristic for judging their own life chances or if the overall well-being of the group affects an individual’s own self-esteem, then there should be a relationship between individual policy
preferences and group-level material conditions. A rich member of a poor group may evaluate policies on the basis of her group’s poverty as well as or instead of on the basis of her own wealth. In the American context, the relevant question would be whether or not the preferences of wealthy citizens who are also African-Americans, are still shaped by the conditions of their relatively less wealthy group. In cross-country analyses, Baldwin and Huber (2010) find that worse development outcomes are associated with higher levels of between-group inequality, a finding that would be consistent with a preference mechanism rooted in the relative material conditions of ethnic groups. We might thus expect group differences in policy priorities to be associated with difference in group wealth or access to services, even controlling for individual-level characteristics.

For each ethnic group, we calculated the average wealth and average levels of services experienced by that group, as reported on the survey. Although we include those variables as individual-level covariates in our models, our question is whether individuals, especially those who deviate from their own group’s mean in these areas, are likely to develop policy preferences that reflect their group’s standing relative to other groups.

Again, we recall that in figure 1, investigating the effect of all ethnic group differences, 19% (48) of these estimated changes were significantly different from zero once individual covariates were introduced. In order to test whether group wealth differences explain which estimates remained significant at conventional levels, we split the 254 estimated changes into those that refer to individuals from ethnic groups whose group wealth differs from the reference group’s by more than a standard deviation; and those from ethnic groups whose group wealth differs from the reference by a standard deviation or less. This yields 167 estimates referring to the former and 87 estimates to the latter. We found that 26 percent of the estimates among the
unequal dyads were statistically significant, while just 6 percent of the dyads with small wealth disparities were significant. (The p-value of a two-sample t-test across the two groups was 0.001.)

We conducted similar analyses with respect to differences in the average level of government services enjoyed by members of ethnic groups, but we found no difference in the incidence of statistically significant differences in policy priorities when dividing group dyads by this criterion.

As a second test, we examined whether wealth differences across all groups in the 16 countries correlated with differences in the predicted probabilities that members of all these groups would prioritize unemployment. We examined unemployment because it is the one issue that at least some respondents in each of the 16 countries identified. Our theoretical prediction is that the more two groups differ in their average wealth, the more the predicted probability of prioritizing unemployment will differ across members of those two groups. We used the multinomial logistic models to generate a predicted probability of mentioning unemployment first for each group in the sample, holding individual-level covariates at their means in each country. We then paired each ethnic group with every other ethnic group in the same country (for a total of 327 dyads) and calculated differences in group wealth and differences in the predicted probability of prioritizing unemployment for each group dyad. Figure 6 graphs differences in the predicted probability of prioritizing unemployment, after controlling for individual-level covariates including, against differences in wealth. The correlation between the two is 0.28, which increases to 0.46 if only dyads with two politically relevant dyads are included in the analysis.
The political relevance of ethnic groups and the magnitude of inter-group wealth differentials helps are both promising explanations for preference divergence among individuals from different ethnic groups. We leave it for future research to test these claims further.

V. Anticipating concerns about endogeneity

We stressed from the outset that our claims here are not causal. Rather, we have demonstrated a strong association between ethnic membership and policy priorities, and we have identified some nuanced patterns conditioned on the various manifestations of ethnicity across polities. This descriptive finding is theoretically consequential because, among other things, it suggests that the hypothesized preference link between ethnic diversity and public policy making is highly plausible. Such plausibility had been dismissed in similar tests in previous work.

However, one threat to our ability to shed light on this larger causal question is the possibility that policy preferences themselves may at times be the basis of ethnic group identification, even in the short term. One way to examine the possibility that identity itself is endogenous to preferences is to use a different measure of ethnic group membership. In the analyses above, we have used self-reported tribal/ethnic group affiliation, and indeed, scholars of comparative ethnic politics have long agreed that the social, political, and other relevance of ethnic categories are largely structured through various political processes, both historical and circumstantial (Waters 1990, Cornell and Hartmann 1997, Lee 2008) such that an ethnic identity cannot simply be inferred from an individual’s personal traits. Yet this “constructivist consensus” belies substantial disagreement about the fluidity of ethnic identities, especially at the individual level. If, on the one hand, individuals simply choose the ethnic labels and associations that they believe are most advantageous to themselves, then the direction of any observable link
between ethnicity and policy preferences almost surely runs from preferences to identity, as people would self sort to their advantage. If, on the other hand, more objectively observable traits, such as spoken home language were also associated with policy preferences, this would suggest that ethnicity influences preferences, at least in the near term.

In seven of the countries (Benin, Ghana, Kenya, Mozambique, Namibia, Nigeria, and Uganda), the correspondence between ascriptive (language) and subjective identities was so close – more than 90 percent of subjective descriptions of identity could be predicted from home language and/or enumerator description of race alone, that it was not possible to distinguish the effects of one from the other. Given the completely implausible notion that African citizens would choose their home language based on policy preferences, it seems fairly certain that the link is a stable one. In Zimbabwe, the question about subjective identity was not asked, so it is impossible to assess the correspondence between answers to the ascriptive and subjective questions, and in Cape Verde, virtually no respondents reported a group affiliation when asked about subjective identities.

For the remaining nine countries in the Afrobarometer survey, we again repeat the multinomial logistic analysis summarized in figure 1 using home language as the indicator of ethnic group membership. In fact, there are more observable preference differences across groups using the home language (ascriptive) categories. A full 30% of the estimated group differences across these nine countries were statistically significant when ethnic identity was proxied by responses to questions about home language. By contrast, only 16% of the estimated group differences across these ten countries were statistically significant at the same conventional level when subjective tribe/ethnic group was used. Using other standards of statistical significance (90% or 97.5% confidence intervals) only heightens the contrast.
Differences in policy preferences across groups certainly persist even when we use a measure of ethnic identity that is implausibly a function of policy preference formation, particularly in this context.

VI. Ethnic heterogeneity and preference heterogeneity across countries

That ethnic differences are routinely linked to differences in preferences for public policies is a significant finding in its own right, which contributes substantially to our understanding of ethnic politics. While this finding is consistent with the preference-mechanism hypothesis with respect to the relationship between ethnic diversity and poor development outcomes, we also investigate whether this pattern holds in cross-country analyses.

The central logic of preference-based theories is that in the context of ethnic diversity, governments find it difficult to enact policies that will be widely appreciated because citizens, conditioned by their ethnic identities, are likely to hold different preferences, and in turn, those groups are more likely to compete over policy decisions, leading to conflict and paralysis. In the macro-level studies that find these relationships, measures of ethnic fractionalization – calculated as one minus the Herfindahl index of population shares -- are interpreted as the probability that any two randomly selected individuals would be from different ethnic groups.

In order to test this theoretical proposition, we create an analogous measure of preference consistency. Specifically, we split each country sample in half, and randomly order the respondents in each half. We then join each respondent from one country sub-sample together to a respondent from the other country sub-sample in that randomly generated order, creating a dataset of dyads for each country. We code each dyad based on whether the two individuals shared at least one choice for the priorities for government. This approach allows us to compare
responses across countries, as we are no longer estimating the determinants of particular policies, but rather the determinants of concordance/discordance within dyads.

We aggregate these dyadic data at the country level to estimate cross-country patterns. For each country, we calculate the percentage of dyads that “match” on policy tastes, and the possible score ranges from 0 to 1. We also calculate our own measure of ethno linguistic diversity by calculating the percentage of dyads with matching home languages and subtract that value from 1. We find that this measure is correlated with a standard ethno-linguistic fractionalization index (Fearon and Laitin 2003) at 0.93.

In figure 7, we plot this summary measure of preference consistency as a function of ethno linguistic fractionalization. Of course, at this level, we have only 18 observations, but the pattern is clear: there is a negative relationship between ethnic diversity and preference harmonization across countries (R= -.35). Removing the outlying case of Madagascar, the correlation is -0.47; if we look only at countries where ethnicity is politically relevant, the slope becomes even steeper at R= -.64. Where ethnic diversity is higher, public policy preference harmonization is lower.

VII. Conclusion

While the recent empirical literature on comparative ethnic politics has suggested that, across ethnic groups, individuals cannot be distinguished by their preferences and tastes for various government goods and policies, our analyses have demonstrated otherwise. While some of the observable difference in preferences can be attributed to individual socio-economic status, there is also a remaining association with group membership. Citizens from different ethnic groups are likely to hold substantially different views about what they want from government, or
how they evaluate policy allocation decisions, holding other factors equal. This link is particularly strong among groups that are politically relevant and/or characterized by large disparities in group wealth. There is little evidence to suggest that these preferences are culturally or primordially rooted; rather, individuals are likely to be influenced by the relative position of their ethnic group, and to interpret political and policy circumstances from that perspective. The result is that there is also a strong correlation between ethno-linguistic diversity and policy preference diversity at the country-level.

Of course, the dynamics of elite-level policymaking need not reflect popular preferences, and institutions certainly mediate the relationship between preferences, policies, and outcomes. But the evidence presented herein certainly suggests that ethnic diversity contributes to preference diversity, making it more difficult to generate stable or widely popular bargains in the political arena. Particularly if ethnic groups are well organized, and if in group-out group relations generate additional political passions, the overlay of systematic differences in preferences for programmatic policies increases the likelihood of political conflict over policy-making, with likely negative effects on development. The causes and consequences of ethnically based policy preference divergence merits greater attention in future research.
References


Afrobarometer, Round 3 Surveys for 18 Countries in Africa (Data and Data Codebook) from afrobarometer.org.


**Table 1a:** P-values of Chi-squared Statistics from Logistic Models, using Whether An Issue was a Respondent’s First Priority as the Dependent Variable

<table>
<thead>
<tr>
<th></th>
<th>Issue 1</th>
<th>Issue 2</th>
<th>Issue 3</th>
<th>Issue 4</th>
<th>Issue 5</th>
<th>Issue 6</th>
<th>Issue 7</th>
<th>Issue 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin (7)</td>
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<td>0.231</td>
<td>0.001</td>
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<td>0.151</td>
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<td>0.980</td>
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<td>0.940</td>
<td>0.020</td>
<td>0.260</td>
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<td>0.034</td>
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<td>0.798</td>
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</table>

**In bold cells, we can reject the null hypothesis of no systematic variation across ethnic groups, using a 95% confidence interval. Columns are ranked by the share of the population mentioning that problem as a priority on the Afrobarometer 2005-2006 survey. The number of ethnic groups in each country is shown in parentheses.**

**Table 1b:** P-values of Chi-squared Statistics, using Whether the Respondent Mentioned An Issue As Any of Her Top 3 Priorities as the Dependent Variable

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<th>Issue 1</th>
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<th>Issue 4</th>
<th>Issue 5</th>
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<th>Issue 7</th>
<th>Issue 8</th>
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</table>

In bold cells, we can reject the null hypothesis of no systematic variation across ethnic groups, using a 95% confidence interval. Columns are ranked by the share of the population mentioning that problem as a priority on the Afrobarometer 2005-2006 survey. The number of ethnic groups in each country is shown in parentheses.
Figure 1: Differences in Predicted Probability of Prioritizing Issues Relative to Reference Ethnic Group

Reference groups: Benin = Fon; Botswana – Mongwato; Ghana = Akan; Kenya = Kikuyu; Lesotho – Bafokeng; Madagascar – Merina; Malawi = Chewa; Mali – Bambara; Mozambique – Makua; Namibia = Ovambo; Nigeria = Hausa; Senegal = Wolof; South Africa = Zulu; Tanzania: Msukuma; Uganda = Baganda; Zambia = Bemba.

Individual-Level Controls: female, employed, education, wealth, access to local services, urban.

Benin: n=1119, #groups = 7; Botswana: n= 792, #groups = 7; Ghana: n= 954, # groups = 5; Kenya: n= 928, #groups = 8; Lesotho: n= 830, #groups = 6; Madagascar: n=943, #groups = 6; Malawi: n= 1080, #groups = 6; Mali: n=848, #groups = 6; Mozambique: n=684, #groups = 6; Namibia: n= 751, #groups = 5; Nigeria: n=1479, #groups = 6; Senegal: n= 1002, #groups = 4; South Africa : n=1824, #groups = 11; Tanzania: n= 306, #groups = 3; Uganda: n=1914, #groups = 10; Zambia: n= 745, #groups = 5
Figure 2: Differences in Predicted Probability of Prioritizing Issues Relative to Reference Ethnic Group; Maximal estimates, by country for top three policy priorities

Reference groups: Benin = Fon; Botswana – Mongwato; Ghana = Akan; Kenya = Kikuyu; Lesotho – Bafokeng; Madagascar – Merina; Malawi = Chewa; Mali – Bambara; Mozambique – Makua; Namibia = Ovambo; Nigeria = Hausa; Senegal = Wolof; South Africa = Zulu; Tanzania: Msukuma; Uganda = Baganda; Zambia = Bemba.

Individual-Level Controls: female, employed, education, wealth, access to local services, urban.

Benin : n=1119, #groups = 7; Botswana: n= 792, #groups = 7; Ghana : n= 954, # groups = 5; Kenya: n= 928, #groups = 8; Lesotho: n= 830, #groups = 6; Madagascar: n=943, #groups = 6; Malawi: n= 1080, #groups = 6; Mali: n=848, #groups = 6; Mozambique : n=684, #groups = 6; Namibia: n= 751, #groups = 5; Nigeria: n= 1479, #groups = 6; Senegal: n= 1002, #groups = 4; South Africa : n=1824, #groups = 11; Tanzania: n= 306, #groups = 3; Uganda: n=1914, #groups = 10; Zambia: n= 745, #groups = 5
Figure 3. Differences in Predicted Probability of Preferring to Allocate More Resources to HIV/AIDS

Reference groups: Benin = Fon; Botswana = Mongwato; Ghana = Akan; Kenya = Kikuyu; Lesotho = Bafokeng; Madagascar – Merina; Malawi = Chewa; Mali – Bambara; Mozambique – Makua; Namibia = Ovambo; Nigeria = Hausa; Senegal = Wolof; South Africa = Zulu; Tanzania: Msukuma; Uganda = Baganda; Zambia = Bemba.

Individual-Level Controls: female, employed, education, wealth, access to local services, urban, friends died of aids, newsinterest.
Figure 4: Comparing Multivariate and Matching Estimates of the Effects of Ethnic Identity in Uganda

- **Poverty**
- **Education**
- **Health**

- **Alur**
- **Ateso**
- **Lugbara**
- **Luo**
- **Mukiga**
- **Munyankole**
- **Munyoro**
- **Musoga**
- **Mutooro**

- **Without matching**
- **With matching**
Figure 5: Differences in Predicted Probabilities of Selecting Top Eight Most Popular Issues in Each Country, Comparing Cultural Groups Across Political Borders (Logistic Regressions for Each Issue)

Reference Groups: Yorubas (Nigeria), Chewas (Zambia), Luos (Kenya)
Individual-Level Controls: female, log(age), employed, education, wealth, access to local services; urban, newsinterest.
Additional control for crime: crime experience; for food: hunger experience.
Figure 6: Group Dyadic Differences in Predicted Probabilities of Prioritizing Unemployment v. Group Dyadic Differences in Average Wealth

![Graph showing differences in predicted probabilities of prioritizing unemployment vs. average group wealth for different dyads and their political relevance.](image)
Figure 7: Preference harmonization and ethno linguistic fractionalization