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The Ethnic Origins of Affective Polarization: Statistical Evidence From Cross-National Data

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Because the debate over the sources of affective polarization has so far mostly focused on the US case, scholars have rarely considered whether the politicization of ethnic differences—when elections and representative processes happen along ethnic lines—may be associated to affective polarization. Looking at both country-level indicators and aggregating individual-level ones, we show that in countries in which ethnicity is politically relevant, there will be, on average, higher levels of affective polarization. This implies that high levels of affective polarization are more likely to occur in societies in which elections revolve around ethnic differences. We then show that as the share of the population who are members of the "ethnic group in power" increases, there will be, on average, a corresponding fall in affective polarization. Together, these findings reinforce the claim that ideological polarization is not the sole factor of affective polarization (AP), by showing that country-level differences in levels of AP owe, in part, to differences in the degree of ethnicization of politics.

Keywords: ethnicization, ethnic politics, polarization, parties, social identity, diversity

INTRODUCTION

From 1960 to 2010, the proportion of Americans who would be "displeased if their child married someone from the other party" increased from 5 to ~50% (Iyengar et al., 2012). This has prompted researchers to study affective polarization (hereafter AP), the concept which captures the extent to which members of a given society dislike and distrust their fellow citizens who do not share their partisan preference, has received much attention in recent years. With US politics being increasingly defined by its fractious nature, Iyengar et al. (2012) conceptually constructed AP, which is rooted in Social Identity Theory (Tajfel et al., 1970), as a means of assessing the feelings of partisans toward their own party (in-group) and toward the opposition party (out-group).

Yet, while most of the research on AP so far has focused on the United States, there is no real reason to believe that such phenomenon would be idiosyncratic to the US, nor that the US would be an outlier. The few comparative studies conducted thus far indeed show that the US exhibits only average levels of AP (Gidron et al., 2018, 2020; Reiljan, 2019; Boxell et al., 2020; Wagner, 2021): while 50% of Americans would be displeased to see their child marry an opposing partisan, this pales in comparison to the 79% of Turkish families who would be disappointed to see their daughter marry a member of the opposite party (Erdoğan and Semerci, 2018).

What explains that such substantial differences in levels of AP exist in different societies? While such cross-national differences in levels of AP are likely driven by multiple (economic, institutional, and social) causes, we highlight in this

article how one important characteristic of political competition in each society may facilitate AP. Drawing on the large comparative literature on ethnic politics (Horowitz, 1985; Chandra, 2004; Posner, 2004), we argue that societies in which politics is ethnicized (that is, societies in which ethnic differences strongly condition elections and/or representation) are more likely to suffer from AP. Insofar as the concept of affective polarization is ideationally proximate to the notion of conflict with which authors in the ethnic politics literature are most commonly concerned, we see an obvious bridge between these literatures. We draw on two main intuitions from this literature. The first is the idea that the political salience of ethnic identities increases the probability of conflict. The second is the idea that the long-term exclusion of ethnic groups from power makes conflict even more likely. Our argument is also, more generally speaking, coherent with the idea that AP has social origins and that a positive relationship exists between the degree of *social sorting* in a society and levels of AP (Harteveld, 2021).

Building on these insights, we rely on a diversity of data to investigate the relationship between ethnicization and AP. Relying on cross-national data from both the Comparative Survey of Electoral System (CSES) and the Ethnic Power Relations dataset (EPR), we show that common indicators of ethnicization and ethnic exclusion correlate with higher levels affective polarization. We first show that in countries in which ethnicity is politically relevant, there will be, on average, higher levels of affective polarization. This implies that high levels of affective polarization are more likely to occur in societies in which elections revolve around ethnic differences. Building on this insight, we then exclude all countries where ethnicity is *not* considered politically relevant, to show that the degree of ethnic exclusion in a society *reinforces* the previously detected effect of ethnicization on AP. These analyses show that as the share of the population who are members of the "ethnic group in power" increases, there will be, on average, a corresponding fall in levels of affective polarization. This relationship holds while controlling for markers of ideological polarization, as well as various social and institutional variables.

Together, these findings reinforce the claim that ideological polarization is not the sole factor of affective polarization (AP), by showing that country-level differences in levels of AP owe, in part, to differences in the degree of ethnicization of politics. These results also highlight the potentially fruitful links between the AP and ethnic politics literatures. Assuming slow-changing ethnic structures, they point to the possibility that, in some cases, a propensity for higher levels of AP may be built into the core demographic structure of a society. Taking a more constructivist approach to the ethnicization of politics, our results by contrast point to the impact that ethnic mobilization, as well as the deliberate exclusion of groups from power, may have on AP.

THEORETICAL DISCUSSION

What are the underlying causes of affective polarization (AP)? With its conceptual genesis in Social Identity Theory, we know that the intergroup conflict which arises out of a competitive political environment plays a fundamental role (Tajfel, 1970; Iyengar et al., 2012). The key challenge is to understand which specific conflict dynamics are at play here—whether they be ideological or social.

Much research suggests that ideological polarization exacerbates AP: evidence from the US for instance tells us that increasing elite-level IP is associated with higher voter-level AP (Rogowski and Sutherland, 2016). There is also evidence of an increasing alignment between the feelings of partisans toward their party and their positions on social policy, highlighting a degree of "ideological sorting" (Levendusky, 2009; Webster and Abramowitz, 2017).

While comparative work, which employs multiple datasets and measures, similarly shows a correlation between IP and AP, this relationship is far from causal (Reiljan, 2019; Wagner, 2021; Torcal and Comellas, 2022). Besides, the intensity of the correlation varies across metrics associated with IP[1] (Gidron et al., 2019; Torcal and Comellas, 2022), particularly across socio-cultural and socio-economic issues (Gidron et al., 2020). This suggests that IP may not be the sole cause of AP or that the relationship between IP and AP may be conditional on additional factors. In probing beyond the ideology argument, scholars have suggested that AP likely derives from *social* factors. We know that AP is more intense when there are high levels of income inequality or unemployment (Gidron et al., 2020) and that high levels of income inequality often "beget negative moral emotions," leading to envy from the bottom toward the top and to scorn from the top toward the bottom (Hitlin and Harkness, 2018). Taken together, these findings show us how IP may interact with various social identities—in this case, social class—to fuel AP.

Taking up the "social" argument, an increasingly influential group of US scholars have emphasized the emergence of partisanship as a distinct and salient social *identity*, as opposed to a mere reflection of one's ideological preferences (Huddy et al., 2015; Iyengar and Westwood, 2015; Mason, 2015). This is consistent with the theoretical expectations of Social Identity Theory, specifically the concept of "group identity," which stipulates that parties form to advocate for specific groups in society. This helps to explain individual level party choices, and the emergence of a defined "party identity" (Huddy et al., 2015).

To prove their points, these scholars suggest that polarization is more exacerbated along partisan lines than along identities more commonly discussed as social identities, such as race and religion (Iyengar and Westwood, 2015). Rather than opposing partisanship to these other social identities, the emergence of partisanship as a social identity may be thought of as a product of the number or the intensity of the social identities in each society. For instance, in the US case, there is a clearly documented trend of both racial and religious identities being increasingly aligned with partisan identities, which has been shown to have contributed to a dramatic uptick in inter-partisan hostility (Mason, 2018).

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[1]The authors find that AP is more intense when unemployment and income inequality are high. However, there is inconclusive evidence regarding the effect of elite ideology on AP (Gidron et al., 2019).

This process, namely *social sorting*, occurs when there is an increasing alignment of political identities and other social identities (Levendusky, 2009). In the US, combined with an associated decline in cross-cutting identities, *social sorting* has been found to drive higher levels of AP over time (Mason, 2015, 2016). Indeed, when individuals are relatively more sorted it enables partisans to make more generalized inferences regarding the views of their opposing partisans, which are often more extreme than reality (Mason, 2015; Levendusky and Malhotra, 2016). This implies that some types of social structures should be more prone than others to being afflicted by AP. Harteveld (2021) provides empirical (and so far, unique) evidence on this point, as he shows the existence of a clearly positive and significant relationship between social sorting and AP, at both the country and individual level.

Yet, this social sorting *along partisan lines* may be a quintessentially American phenomenon, insofar as partisan identification is far higher in the US than in most other countries, especially in the global South. Where partisanship plays a less central role and parties merely tend to be ephemeral, disposable vessels for ethnic divisions in society, affective polarization may more directly have to do with the degree of salience of ethnic differences in a given society.

In the words of Chandra (2006), ethnic identities—"the subset of identity categories in which eligibility for membership is determined by descent-based attributes[2]"—may or may not be politically salient. Posner (2004, 2017) best explains the rationale for this potential variation in salience: if we understand ethnic identities to be in part instrumental and ethnic groups to be "coalitions which have been formed as part of rational efforts to secure benefits" (Bates, 1983), it follows that we should observe stark variations in the degree of political salience of these identities, as a function of both demography and institutions. As illustrated by Posner, simple changes in boundaries or the size of electoral constituencies may for instance lead, in a matter of years, to the political emergence or the reemergence of a salient ethnic force (Posner, 2004).

While it is related to it, salience needs to be distinguished from the degree of potential alignment or sorting between ethnic identities and partisan identities. Related research has already hinted that the degree of ethnic cross-cuttingness and ethnic diversity of a society may be predictive of affective polarization (Selway, 2011; Harteveld, 2021). However, such measures based on fractionalization indices only provide us with a first order understanding of diversity within a polity and do little to describe how these groupings actually interact on a political and social level (Posner, 2004). Specifically, they do not take into account whether these ethnic identities are politically salient or dormant, nor the degree to which political competition is ethnicized, which is important to account for when thinking about partisan identity and AP.

Why should politically salient *ethnic* divisions especially affect affective polarization? Our argument on this point is relatively simple and builds on the aforementioned argument about social

sorting. Namely, we argue that salient *ethnic* identities should make the kind of social sorting that is associated to AP especially sticky and hard to change. Building on Chandra (2006), we observe that ethnic identities have two central properties, as compared to other types of potentially salient social identities: they are *on average* more visible, and *on average* harder for individuals to shake off (that is, they are subject to "constrained change," often in connection to traits associated with descent).

These distinctive properties of ethnicity have two likely implications. The first one is that salient ethnic identities are more likely to lead to AP than other types of divisions/sorting because it is harder for individuals to "change side" (i.e., less mobility is possible). In a context in which the main cleavage is ethnic—as opposed to based on other types of social identities, including class. This may lead to a form of entrenched sorting that explains Horowitz's assertion that "where parties break along ethnic lines, elections are divisive" (Horowitz, 1985). While we cannot test this mechanism directly with the data we have, we can test whether AP is generally higher in countries where ethnicity is politically relevant. This is an important first step in establishing the link between the salience of ethnic identities and AP. As such, we first hypothesize that:

H1: Affective polarization will be higher in countries where ethnic identity is relevant in terms of competing for political power.

The second implication is that those excluded from access to office in such a configuration of ethnic salience are also more likely to develop grievances and polarization against those that are not excluded (i.e., Insiders). This is because the boundaries between their group and other groups are thicker, and as such less porous than the boundaries that exist between non-ethnic social groups. This relative absence of porousness may be hypothesized, over time, to aggravate the grievances of groups excluded from office. This provides a possible mechanism for the connection between large-scale exclusion from political power on an ethnic basis and affective polarization. As noted by Chandra and Boulet (2005), "democracies in which ethnic divisions are politically salient [...] are especially likely to produce the *permanent* exclusion of some group from power. Consequently, they are especially likely to be unstable Dahl, 1971; Rabushka and Shepsle, 1972; Horowitz, 1985, 1993; Guinier, 1994)."

In reverse, this implies that the larger the coalition of ethnic groups with access to power, the smaller the likelihood of conflict. Ultimately, the more individuals within a society that identify with an ethnic group which has access to political power the less incentive there will be for those individuals (and groups) to mobilize based on the logic of political exclusion. It is this interaction between group size and access to power that provides the bridge to AP. An implication of this should be that we should observe more AP when more people are excluded from power in a context of politicized ethnicity. Thus, we offer our second hypothesis:

H2: In countries where ethnicity is a politically relevant factor, affective polarization will be lower when a larger share of the

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[2]In that sense, Chandra conceptualizes ethnicity as an umbrella category including religious, regional, linguistic, racial, national, caste, and clan-related identities.

population is a member of an ethnic group(s) that is both politically relevant and has access to political power.

As noted by the formulation of H2, this line of investigation is partially predicated on *H1*. If we are to make an inference regarding how ethnicity relates to AP within a society, this entails that ethnicity be politically relevant.

DATA AND MEASURES

To test these hypotheses, we follow the few existing comparative studies of AP in utilizing the Comparative Study of Electoral Systems (CSES) as a data source for operationalizing AP (Gidron et al., 2018; Reiljan, 2019; Wagner, 2021). This project has spanned 5 survey rounds running from 1996 to 2021 and includes 196 election surveys in 55 countries. As we exclude surveys that only examine Presidential elections[3], this leaves us with 179 elections across 51 countries as a base sample. However, due to missing data and variation across measures employed in our analysis this will invariably change per model, as is clear from the descriptive statistics presented in **Supplementary Table A2.1**. It should also be noted that previous work has mostly focused on understanding AP in a "Western" context. While this is partially a function of the CSES data being largely made up of election surveys from such countries, there is scope to extend our understanding of AP beyond the "Western" lens by including data from Eastern Europe, Latin America, and South/East Asia. Given that our analyses aim to link the literature on ethnic conflict and AP this seems to be a particularly pertinent coding decision.

Dependent Variable: Affective Polarization

To evaluate levels of affective polarization, we employ three measures, based on the work of two scholars: Reiljan (2019) and Wagner (2021). All three utilize party like-dislike survey items from the CSES. Such questions gauge respondents' feelings toward each party and not toward their fellow voters. As such, they allow only for a general understanding, or "weighted sympathy," of each respondent's feelings toward both fellow supporters of their in-party and the supporters of their out-party(s) (Harteveld, 2021).

While using like-dislike scores only allows us to come up with an indirect measurement of AP, such measures tend to correlate strongly with other AP measures (Druckman and Levendusky, 2019; Knudsen, 2021). Combining this with the consistent and systematic asking of like-dislike questions related to parties across the CSES data, these measures, while imperfect, best serve the purpose of this research.

Affective Polarization Index (API)

Reiljan (2019) constructed the *API* as an aggregate-level measure of AP, calculated as being positioned in a range from 0 (low AP) to 10 (high AP)[4]. Formally, the *API* indicates the average divergence

TABLE 1 | Pearson correlations for AP DV's.

	Wagner 1	Wagner 2
API	0.692**	0.791**

*$p < 0.05$; **$p < 0.01$.

of partisan affective evaluations between in-party and out-parties, weighted by the electoral vote share of each party (Reiljan, 2019).

A key coding decision in the *API* calculations was to only include respondents that indicated they were partisans. Logically, this makes sense as we are concerned with measuring *partisan* affect. However, evidence suggests that as partisan ties are typically less strong in newer democracies, excluding non-partisans may be problematic (Lupu and Stokes, 2010). This coding decision also necessitates the exclusion of rounds 1 and 2 of the CSES data due variation in the partisan ID question used.

In order to widen our sample, we calculated *API* scores for the majority of election surveys that were excluded by Reiljan (2019) in the CSES rounds 3 and 4, as well as all those published thus far in round 5. This brings our total *API* sample to 103 elections across 48 countries[5].

Wagner 1 and Wagner 2

Wagner (2021) constructs *affpolwght (Wagner 1)* and *likedistwght (Wagner 2)* to measure AP for all available election surveys across the CSES, calculated for all survey respondents, including non-partisans[6]. Here we can already see a clear distinction with the *API*. How do *Wagner 1* & *2* differ from one another?

In a multiparty context it is entirely possible that some individuals will positively identify with multiple parties, particularly those that are ideologically close (Weisberg, 1980). *Wagner 1* addresses this issue by measuring the spread of like-dislike scores for each individual, which does not assume one "in-party." In contrast, *Wagner 2* provides a hybrid of the two previous measures as it includes <u>all</u> respondents but assumes positive identification with one party (Wagner, 2021).

Addressing Potential Discrepancies

As mentioned above, like-dislike scores are an indirect measure of AP (Knudsen, 2021). This is why we have chosen to employ three measures from two different scholars. However, as evident from **Table 1**, there will likely be some variation across the models employed below depending on which AP measure is used as the DV.

Where does this variation come from? Given the *API* only includes self-identifying partisans, this will likely be the source of some measurement discrepancies. The intensity of partisan ties tends to vary widely amongst nations. For instance, while US partisan affiliation has remained relatively consistent over time[7], the existing evidence from newer democracies indicates that partisan ties tend to be weaker (Lupu and Stokes, 2010). Further complicating this dynamic is the actual method of isolating

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[3]Reiljan (2019) argues that as party vote-shares are used to calculate AP scores this renders Presidential elections unsuitable, as votes are attributed to candidates and not parties.

[4]For a detailed description of how this measure is constructed, see Reiljan (2019).

[5]For API calculations, see **Supplementary Material** (Section B).

[6]For a detailed description of how this measure is constructed, see Wagner (2021).

[7]See 17-year trend here: https://news.gallup.com/poll/15370/party-affiliation.aspx

partisans in cross-comparative studies, which can often lead to both over and under estimation of the true number of partisans (Castro Cornejo, 2019).

Ultimately, there is no "right way" to measure partisanship across different contexts (Converse and Pierce, 1985). That is not to say that such a qualification is useless for analysis. Indeed, the *API* likely captures the feelings of "strong" partisans much more effectively than *Wagner 1 and 2*. This distinction could allow for a more granulated understanding of how various dynamics influence AP. However, for the purposes of this analysis, which broadly focuses on how ethnic demographics structure political power dynamics within a nation, a wider view of partisanship shall be equally relevant.

Independent Variables (IVs)

We use two key IVs in our analyses, along with several other control variables[8]. For these key IVs, we utilize the Ethnic Power Relations (EPR) Core Dataset 2019, which provides data on politically relevant ethnic groups, specifically relating to their size and access to power, for all sovereign states during the period 1946–2019.

The first IV used is *Ethnicity Relevant (ctry_relevant in EPR dataset)* which is a dichotomous variable indicating whether ethnicity is considered politically "relevant" (1) or "irrelevant" (0) in the context of a given country's politics. Specifically, countries are coded as "irrelevant" when no ethnic group within said country has been deemed politically relevant during the period covered by the EPR. In such cases, a "placeholder-group" is coded, for instance the Germans in Germany.

We acknowledge that using a dichotomous variable as an indicator of whether ethnicity plays a relevant role in a country's political sphere is a somewhat "blunt-force" operationalization. Only in the most benign cases is ethnicity coded as not being "relevant." However, we view it as a first-order step in establishing a possible relationship between the ethnicization of politics and AP. Future work could attempt to measure the "degree of relevance" of ethnicity in a country's politics on a continuum.

One key advantage of employing this particular operationalization is the consistency it provides with our second IV, *Ethnic Group(s) in Power as a share of the total population* (*egippop*). For instance, when *Ethnicity Relevant* = 0, the *Ethnic Group(s) in Power as a share of the total population* is coded as null/missing. This allows us to avoid discrepancies in coding that may have arisen from using different indicators.

Ethnic Group(s) in Power as a share of the total population is a metric scale variable that gives the sum of the population of all EGIP as a share of the total population in a given country. This variable provides some insight into the ethnicization of access to power structures in a polity within which ethnicity is deemed politically relevant. In terms of coding, the ethnic group in question must be, at least, a "Junior Partner" whose members participate in political decision making as part of a government (Vogt et al., 2015).

Once more, our two independent variables work together as a two-stage test given that *Ethnic Group(s) in Power as a share of the total population* will be effectively irrelevant when *Ethnicity Relevant* = 0. We expand on this in the next section.

Given multiple studies have shown a statistical relationship between IP and AP, we include a widely used variable for IP based on public perceptions of ideology (Dalton, 2008; Reiljan, 2019). We constructed additional scores for this measure that were unavailable in the existing literature[9].

We also include other control variables as stipulated by the wider literature. Given evidence that shows how the number of parties and the type of electoral system influences AP, we include a measure for the effective number of electoral parties (ENP) and three dummy variables for each electoral system (majoritarian, mixed, and proportional; Fischer et al., 2021). A dummy variable, *Polity Score,* which indicates whether a country is an electoral democracy (1) or not (0), is included. Finally, we include a standard measure of income inequality employed in previous research (Gidron et al., 2019). The *Income Inequality (Gini)* variable from the Standardized World Income Inequality Database (SWIID), measures inequality in market (pre-tax, pre-transfer) income where 0% denotes perfect equality (i.e., all income values are the same) while 100% denotes maximum inequality (Solt, 2020).

METHOD AND RESULTS

Model Specifications

The first methodological issue to address concerns the observations in our sample. While 179 observations across 51 countries can be considered a cross-section of panel data, given some countries record only one observation, this requires a more nuanced statistical approach.

To address this issue we treat each AP score as an independent observation, giving us a *Pooled Sample Model (PSM)*. This approach allows us to better control for factors that affect individual country's and elections, such as large variations in income inequality or the effective number of parties (Ferree, 2010). It also yields the highest possible sample size attainable with our dataset and approach[10].

The second methodological issue relates to the two key IVs, *Ethnicity Relevant* and *egippop*, which both display little to no variation within countries across time. This lack of variation renders the use of country fixed effects in any model effectively useless (Bell and Jones, 2015). As such, we employ a *Random Effects Model (REM)*. Using random effects is a next best alternative to fixed effects in that it does not falter in the face of time-invariant IVs.

As both model types require us to pool our sample, there will inevitably be issues posed by the correlation between our predictors within countries over different elections. To correct

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[8]Please see **Supplementary Material** (Section A2) for detailed descriptions along with a table of descriptive statistics (**Supplementary Table A2.1**).

[9]See **Supplementary Material** (Section C) for additional IP-Dalton calculations.

[10]We also took the average scores across countries for all variables and ran *Country Average Models*, these are reported in **Supplementary Material** (Section A) and briefly addressed in the Robustness Checks section below.
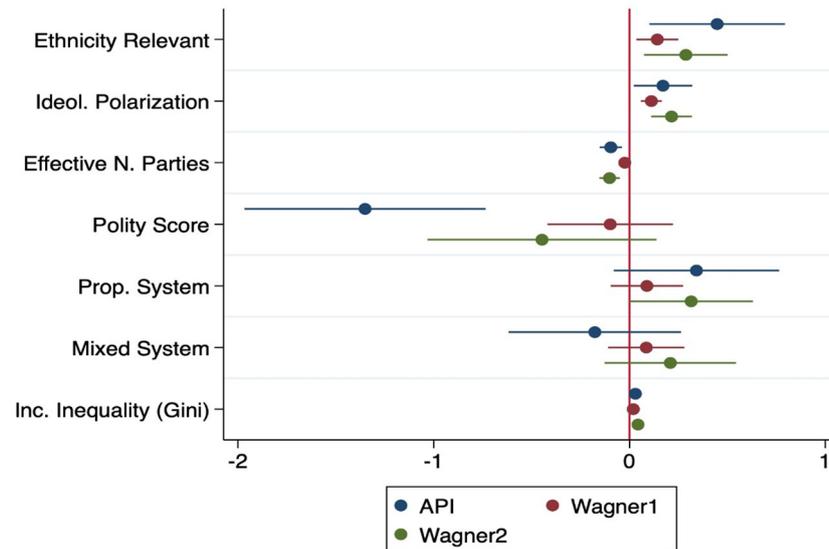
FIGURE 1 | Pooled sample models for ethnicity relevant.

for such issues, we employ robust standard errors clustered on countries.

RESULTS

Remembering that our two key IVs are not independent one from another, we present the models including *Ethnicity Relevant* in **Figures 1**, **2**, and *Ethnic Group(s) in Power as a share of the total population* in **Figures 3**, **4**[11]. The models including *Ethnicity Relevant* directly address whether, at a basic level, AP is higher in countries where ethnicity is politically relevant (*H1*).

As the second stage of the analysis (our test of H2) is predicated on an interaction between ethnicity being politically relevant and the ethnic power demographics structure within a given country, we exclude the 10 countries in which *Ethnicity Relevant* = 0[12]. This allows us to more accurately ascertain whether the share of the population that is a member of an EGIP impacts the level of AP (*H2*).

The three models presented in **Figure 1** show a positive and statistically significant relationship between *Ethnicity Relevant* and each of the three AP measures, indicating some support for *H1*. It should of course be noted that while significant, the size of the effect is relatively small, with the largest being an average predicted increase of 0.448 for the *API* when ethnicity is relevant in a country[13]. This likely speaks to the fact that the

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[11]Note that we only include models which showed statistical significance in the main body of this paper as coefficient plots. For all other models, including fully specified versions of the models included in **Figures 1**–**4**, please see the relevant tables in **Supplementary Material** (Section A).

[12]See **Supplementary Table A5** for breakdown of which country's ethnicity is deemed "relevant" in EPR-Core dataset.

[13]The predicted effect sizes are 0.142 and 0.288 for the Wagner 1 & 2 models, respectively.
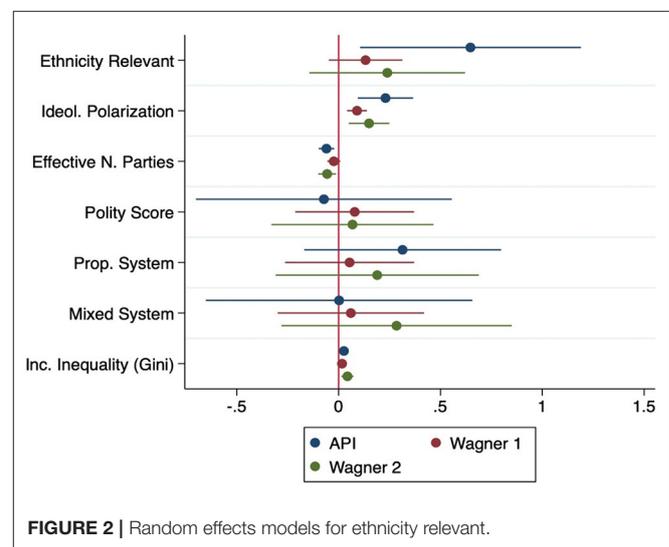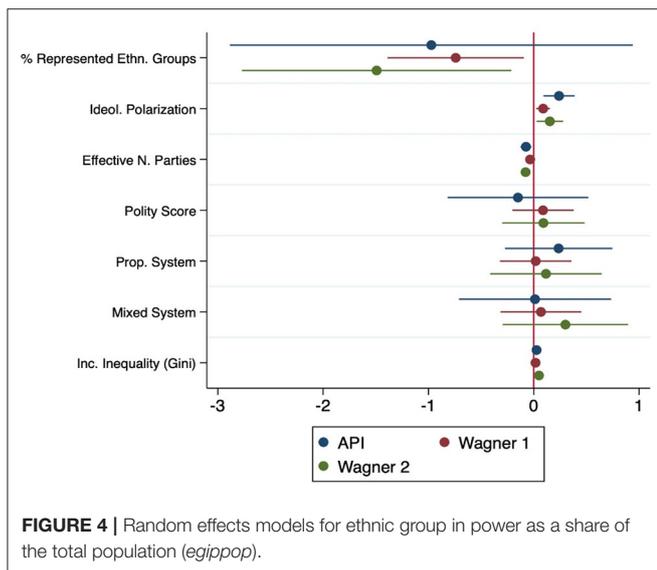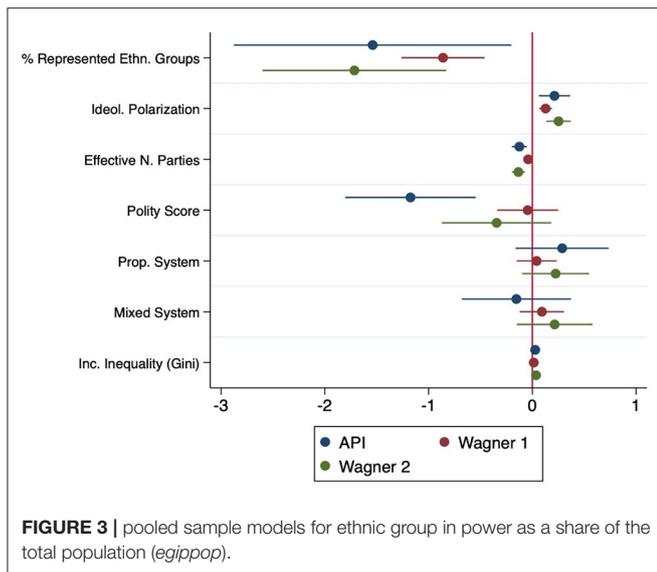

FIGURE 2 | Random effects models for ethnicity relevant.

Ethnicity Relevant variable shows no temporal variation across elections within the countries included in our analysis. Given the time-invariance of this variable, it renders a Fixed Effects model effectively useless. Hence, we employ a Random Effects model to further test *H1*.

In **Figure 2**, we present the result for the *Random Effects Model* including *API* as the DV. The *API* is the only measure for which we find a statistically significant relationship with *Ethnicity Relevant*, showing an average predicted effect of 0.652, which is larger than the corresponding effect in the *API Pooled Sample Model*.

These results further indicate that when ethnicity is relevant, AP will be higher in a given country. However, this finding

FIGURE 3 | pooled sample models for ethnic group in power as a share of the total population (*egippop*).

FIGURE 4 | Random effects models for ethnic group in power as a share of the total population (*egippop*).

is tempered by the insignificant results for the *Wagner 1 & 2* models. As such, the initially positive support for *H1* provided by the *Pooled Sample Models* is undermined somewhat. However, given the consistency shown across both model types for the *API* measure, we feel this indicates a qualified level of support for *H1*, particularly as these results hold when controlling for *IP*.

Recalling that the *API* only accounts for self-identifying partisans, whose partisan identity will likely be highly activated relative to the general population. These results indicate that, at a basic level, in countries where ethnicity is deemed politically relevant, AP will be higher amongst these self-identifying partisans. This may reflect the strength of ethnic identification on partisanship when these two identities are *socially sorted*. However, such claims are beyond the scope of the present analyses.

These results do not tell us anything about how the internal dynamics of ethnic power competition within a country will impact AP, as hypothesized in H2. As mentioned above, the dichotomy between ethnicity being politically relevant, or not relevant, likely obscures some meaningful differences within the pool of countries in which ethnic identities are salient. If salience does not lead to exclusion, which it need not lead to (contra Horowitz, 1985), then it may be that not all countries in which ethnic identities are salient have the potential to see an increase in AP, or on the contrary, that only countries in which ethnic minorities are excluded should see such an increase.

The models presented in **Figures 3**, **4** test this. These results indicate that as the share of the population who are members of an EGIP increases there is, on average, an associated fall in AP. Across both sets of models we see quite large effects sizes, with an average predicted effect of −1.715 in the *Wagner 2 Pooled Sample* model and −1.492 in the corresponding *Wagner 2 Random Effects Model*[14]. These findings are statistically significant across all *Wagner 1 and 2* models, lending strong support to *H2*. While we also see statistical significance for the *API* Pooled Sample model in **Figure 3**, we do not see a significant relationship in for the *API* Random Effects model in **Figure 4**. These results also hold while controlling for IP, which is again statistically significant across all models. Interestingly, this trend is the inverse of what we saw with the *Ethnicity Relevant* models where only the API ones showed consistently statistically significant results.

These results also support the theoretical expectations of Horowitz (1985), according to whom the more individuals within a society who identify with an EGIP, the less incentive there will be for those individuals to foster feelings of animosity toward their opposing partisans, all else equal. Thus, not only can we infer that relative group size matters but that the interaction of group size and access to political power can be an important determinant of levels of aggregate AP.

More broadly, taken together the above models all indicate that while IP plays an important role, AP is, at least in part, grounded in social identity, especially so when that social identity is ethnic. This finding has important implications for how we think about AP. Assuming slow-changing ethnic structures, they point to the possibility that, in some cases, a propensity for higher levels of AP may be built into the core demographic structure of a society. This will of course be mediated by many factors such as the degree of *social sorting*, leveraging of salient identities by elites, and indeed which identities are salient at a given moment. Nevertheless, these findings give a clear indication that AP does have its roots in social identity. Taking a more constructivist approach to the ethnicization of politics, our results by contrast point to the impact that ethnic mobilization, as well as the deliberate exclusion of groups from power, may have on AP.

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[14]The predicted effect sizes were −1.539 and −0.861 in the *API* and *Wagner 1 Pooled Sample* models. They were −1.044 and −0.765 in the corresponding *API and Wagner 1 Random Effects* models.

Robustness Checks

How robust are these findings? We ran a number of robustness checks to further buttress the empirical results implied by the above models. First, we took the average AP measure for each country to garner a single cross-section of data which we ran as a *Country-Average Model (CAM)*. While this method may obscure election specific variation, it ensures that the sample is not artificially inflated. It also addresses any country-specific effects that may be present. The results of these models are presented in **Supplementary Tables A5a, A5c**. They support our statistical findings for the above models including Ethnic Group in Power as a share of the total population, showing a strong significant relationship with both *Wagner 1 & 2* measures.
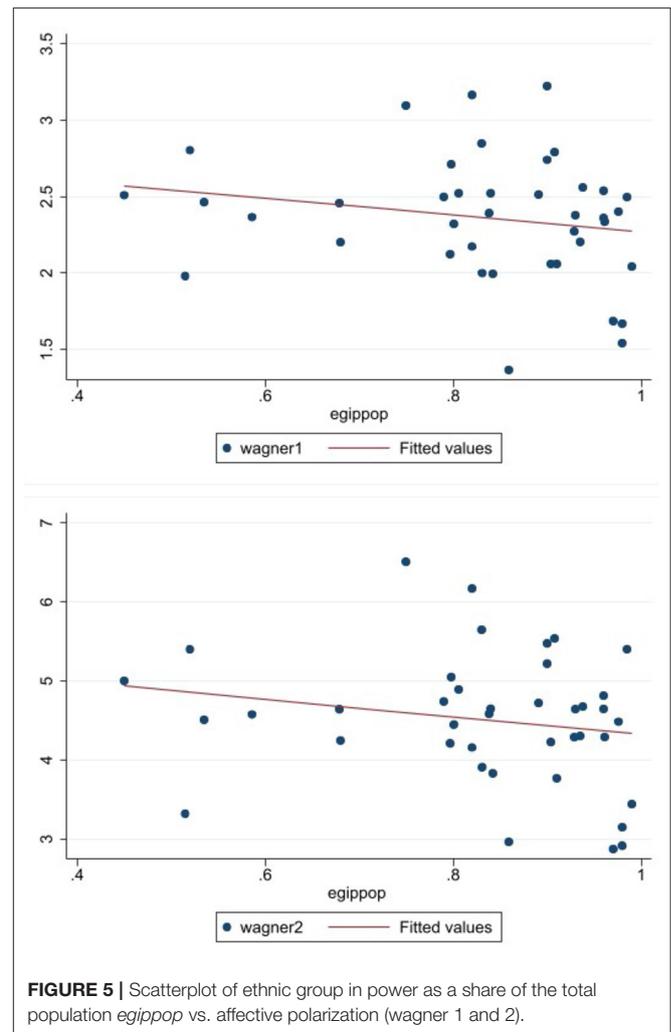
However, **Figure 5** show that the basic relationship between *Ethnic Group(s) in Power as a share of the total population* and *Wagner 1 and 2* is relatively weak (0.042 and 0.045), despite a statistically significant relationship in the fully specified models. This highlights a number of potentially distorting factors, the first being the presence of outliers/influential cases in our data. We test this distorting effect in the models presented in **Supplementary Table A7** by excluding all such cases. Both models continue to indicate a strong and significant relationship for *Ethnic Group(s) in Power as a share of the total population*.

Turning to the approximation of *Ethnic Group(s) in Power as a share of the total population*. Is the distinction at the heart of this variable, that an ethnic group be politically relevant, unnecessary? **Supplementary Tables A4.1, A4.2** show all our models re-run with Fearon's (2003). Fractionalization measure used in place of *Ethnic Group(s) in Power as a share of the total population*. Looking specifically at the REMs, we see no statistical significance in Model 2 or 3, thus providing some validation for the choice of *Ethnic Group(s) in Power as a share of the total population* as the key measure of diversity in this analysis.

Ethnic Group(s) in Power as a share of the total population is somewhat correlated with both the IP and ENP variables, highlighting potential issues with multicollinearity. While the diagnostic tests presented in **Supplementary Table A8** indicate that this is not an issue, we need to dig a little deeper.

Unfortunately, due to the relatively small sample N, identifying a statistical interaction is beyond this data. This is clear from the results presented in **Supplementary Tables A6.1, A6.2**, which show no statistical effect for any of the interaction terms included in the above models. Given the likelihood of at least some interaction between these IVs, these statistical shortcomings highlight one of the logical next steps for this line of research.

Utilizing individual level data would allow for greater precision in teasing out interaction effects. It would also enable a more accurate conceptualization of how being a member of an EGIP structures a given partisans feelings toward their opposing partisans. Ultimately, with any country-level analysis involving ethnicity, it must be acknowledged that there are levels of complexity that cannot be captured empirically. As such, while our findings point toward AP being grounded in social identity

FIGURE 5 | Scatterplot of ethnic group in power as a share of the total population *egippop* vs. affective polarization (wagner 1 and 2).

and being linked to ethnic power demographics, we cannot make a claim to true causality without conducting further research with more refined data.

A Note on AP Measure Discrepancies

We have seen some discrepancy in results across different measures of AP. This may be a result of the approximation differences in these measures, as briefly highlighted above. In **Figures 1**, **2**, only the models including the *API* measure showed a consistently strong and significant relationship with *Ethnicity Relevant*. Remembering that the *API* only accounts for self-identifying partisans, whose partisan identity will likely be highly activated relative to the general population. These results indicate that, at a basic level, in countries where ethnicity is deemed politically relevant, AP will be higher amongst these self-identifying partisans. We speculate that this may reflect the strength of ethnic identification on partisanship when these two identities are *socially sorted*. However, such claims are beyond the scope of the present analyses.

In contrast, of the models presented in **Figures 3**, **4**, it is all those that include *Wagner 1 & 2* which show a consistently strong and significant relationship with *Ethnic Group(s) in Power as a share of the total population Ethnic Group(s) in Power as a share of the total population*.

Given the results presented in **Figures 1**, **2**, it might seem counterintuitive that only *Wagner 1 & 2* models see significant results in **Figures 3**, **4**. The models in **Figures 1**, **2** indicated that when ethnicity is politically relevant self-identifying partisans will exhibit higher levels of AP generally. This may imply that it is enough for ethnicity to simply be relevant in a given country for an aggregate increase in AP among self-identified partisans. If this is the case, we need to account for how relevant ethnicity is when thinking about AP levels amongst a broader swathe of the population. A strong and significant relationship between *Ethnic Group(s) in Power as a share of the total population* and both *Wagner 1 & 2* measures, indicates that the relevant size of ethnic groups and their access to power in a country in which ethnicity is a relevant political factor does indeed have implications for aggregate AP amongst the wider voting population.

Teasing out the exact dynamics at play here, and the substantive methodological and empirical difference between these different measures presents an exciting new avenue for further research.

DISCUSSION

This paper makes several important contributions to the comparative literature on AP. Building on work from US scholars on the social origins of AP and incorporating insights from the ethnic politics literature, we have highlighted a link between ethnic diversity and AP. Utilizing work from, among others, Horowitz (1985) and Posner (2004), we hypothesized how ethnic demographic structures, when linked to politically relevant groups, can influence dynamics of animosity and conflict within a given society.

The empirical results lend some weight to these theoretical claims. At the macro level, there is an indication that AP will, on average, be higher in countries where ethnicity is considered politically relevant. Building on this, the second stage of the analysis shows that when ethnicity is a politically relevant factor within a country, the larger the share of the population that is a member of an EGIP, the lower AP will be on average. This result holds while controlling for a number of key influencing factors of AP, most notably IP.

Several limitations constrain our analysis. Chiefly among these is the fact that coding salient ethnic divisions can pose difficulties. For instance, Turkey shows consistently high levels of AP across the three data points in our sample (2011, 2015, and 2018). As highlighted in the introduction, 79% of Turkish families would be displeased to see their daughter marry an opposing partisan (Erdoğan and Semerci, 2018). If *H2* were to hold, we might expect Turkey to have a relatively low proportion of the population as members of an EGIP. However, the EPR-Core codes the "Turkish" ethnic group as the EGIP with 75% of the population (vs. the Kurds, with no access to power). Over the past 20 years the Turkish-Kurd cleavage has been superseded in terms of political salience by the Islamist-Secularist cleavage (Aydin-Düzgit, 2019). This shift occurred with the ascent to power of the AKP/Erdogan in the mid-2000s, as seen in the 2018 general election results, with 54% for Islamist parties vs. 46% for secularists (Somer, 2019). This is not to say that the Turkish-Kurd cleavage is no longer relevant. Rather, this change highlights the inherent complexity in measuring identity configurations.

This paper's analyses are also restricted to a single dimension of ethnicity, with the political relevance of an ethnic group being the key distinction. While this approach is useful, it ignores other factors such as the degree of cross-cuttingness across cleavages. An interesting future direction may lie in incorporating the political relevance distinction into Harteveld's (2021) measure of *social sorting*. This could prove useful at both the macro-level (between cleavages) and the micro-level (within cleavages).

Other opportunities may lie in both the new EPR-Ethnic Dimensions and forthcoming EPR-Organizations datasets. The former provides information on the linguistic, religious, and racial cleavages that internally divide the ethnic groups in the EPR-Core data, while the latter maps various ethno-political organizations across all the groups from the EPR-Core. This data could be used to construct more precise measurements, such as an "Ethnically Effective Number of Parties" variable.

Despite the data and approximation issues with this analysis, the results do support the hypotheses, thus confirming the value in linking the fields of ethnic politics and AP. In particular, our analyses may speak to the ongoing debate between consociational and centripetal models of constitutional design. Given Horowitz is a key advocate of centripetalism and the theoretical genesis of this paper, we may assume these results impact negatively on the argument for consociationalism.

While consociationalism aims to overcome deep cleavage divisions by giving relevant groups a "seat at the table," it also has the knock-on effect of enshrining such groups at the center of a state's political system. Given the social identity origins of AP, surely a system of constitutional design which places divisive identity cleavages at heart of political power will, in the long-run, tend to exacerbate AP? Future research should endeavor to answer such questions.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/**Supplementary Material**, further inquiries can be directed to the corresponding author/s.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpos.2022.920615/full#supplementary-material

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