ABSTRACT

In recent decades, Brazilian voters have grown polarized between supporters of the Partido dos Trabalhadores (Workers’ Party, PT), known as petistas, and its opponents, known as antipetistas. What explains this animosity? One potential source of polarization is partisan stereotyping, a tendency for partisans to misperceive the social composition of both their own side’s bases of support as well as their opponents’. We show that most Brazilians overestimate the extent to which petistas and antipetistas belong to party-stereotypical groups such as Afro-Brazilians, evangelical Christians, or poor or rich people. We then show that stereotyping is associated with polarization: the greater the bias in perceived partisan group composition, the greater the perceptions of partisan political extremism and feelings of social distance toward the partisan out-group.

Keywords: partisanship, negative partisanship, polarization, Brazil, petismo, antipetismo, stereotyping

In the run-up to Brazil’s 2018 general elections, won by conservative populist Jair Bolsonaro, an online video game called “Bolsomito 2k18” was released and went viral. “Bolsomito” is a portmanteau from a meme Bolsonaro’s supporters created that combined his name with the Portuguese word mito—best translated not as its cognate word “myth” (conventionally, a well-known but false idea) but as “legend,” in its contemporary American vernacular sense of someone or something exceptional.

The objective of the game was simple and brutal: as Bolsonaro, players must first beat to death a parade of Black, gay, and feminist activists, and then defeat a herd of...
donkeys wearing the logo of Bolsonaro’s nemesis, the Workers’ Party (Partido dos Trabalhadores, PT; the word for donkey also means “stupid” in Portuguese). The moment Bolsonaro killed one of his enemies, they would turn into a pile of feces represented as the “poo emoji.”

The game’s creators claimed that it was all in good fun. However, the gameplay reflects the virulence of contemporary Brazilian political discourse, the country’s deep political polarization, and—pertinent for present purposes—the spread of partisan stereotypes. Why did the game’s creators decide to represent petistas—voters who profess a partisan attachment to the PT—as Afro-Brazilian, gay, or women? Do other stereotypes come to Brazilians’ minds when they think about PT supporters today? Likewise, what stereotypes come to Brazilians’ minds when they think about people on the other side of the political spectrum—antipetistas, voters who dislike the PT?

We suggest that partisan stereotyping contributes to political polarization in contemporary Brazil. Voters around the world tend to think about political parties—those they support as well as those they oppose—in terms of the social groups that make up a party’s base (Berelson et al. 1954; Converse 1964; Green et al. 2002). For example, they might associate one party with economic elites and another with the working class. In the United States, misperceptions about partisan group composition can be large. For example, Ahler and Sood (2018a, 965) reveal that American voters dramatically overestimate the proportion of Democrats who are Black or LGBTQ+ and Republicans who are white and rich (see also Ahler and Sood 2022).

Just as Ahler and Sood (2018b) found for the United States, the roots of polarization in Brazil may not lie with parties’ actual group composition, but rather with the extent to which voters misperceive the proportion of partisan supporters they believe come from different social groups. As we show below, just like US voters, Brazilians also tend to overestimate the proportion of partisans who belong to “stereotypical” groups. These misperceptions, in turn, contribute to polarization—because voters’ positive or negative sentiments about the groups they believe make up parties’ vote bases shape the depth of their in-group favoritism and out-group animosity.

1. Partisanship and Polarization in Brazil

Brazil’s electorate is polarized between petistas and antipetistas (Samuels and Zucco 2018). Members of the former group express a positive partisan attachment to the PT in the traditional sense. However, antipetistas dislike the PT but do not, in general, strongly identify with any other party. They are purely negative partisans and have no “in-group” with which they affiliate, associate, or identify.

Antipetismo long predates Bolsonaro—indeed, it has grown in tandem with the PT since the party’s emergence in the 1980s, while Bolsonaro did not capture the hearts and votes of antipetistas until his 2018 presidential candidacy and failed reelection campaign in 2022. He did not create antipetismo, nor did he unify antipetistas under a single partisan banner. Meanwhile, petistas identify with the PT but do not necessarily also express negative partisanship toward any other party. Since
the 1990s, these positive and negative partisan attitudes have powerfully shaped voter policy attitudes and candidate choice in Brazil.

The dynamic of polarization in Brazil is distinct from countries such as the United States, where supporters of parties on opposite sides of the political spectrum clash. Brazil is an interesting case for exploring how partisan stereotyping can polarize because historically, neither positive nor negative partisanship has been rooted in deep ideological, socioeconomic, or cultural cleavages. Before 2018, age, gender, education, religiosity, social class, race, left–right ideology and an urban–rural divide did not distinguish petistas from antipetistas, or did so only minimally (Samuels and Zucco 2018).

Since that year, a limited amount of sociodemographic “sorting” between petistas and antipetistas has occurred (Amaral 2020; Nicolau 2020; Smith 2019). For example, Layton and colleagues (2021) note that although demographics have not historically predicted positive or negative partisanship, Bolsonaro’s 2018 campaign divided voters to some degree on race, religion, and gender. Similarly, summarizing results of the 2022 election, Hunter and Power (2023) revealed that Lula did better among Catholics, women, the poor, and Afro-Brazilians, while Bolsonaro did better among more affluent voters, whites, evangelicals, and men (see also Araújo 2022 and Rennó 2022).

The emergence of such divides may contribute to stereotyping about the prevalence of certain demographic groups among petistas and/or antipetistas. Voters form beliefs about the group basis of partisan composition via the mass media—through violent video games and countless other channels—which popularize particular images of parties and their supporters (Levendusky and Malhotra 2015). These images are then filtered through conversations about politics with others (Baker et al. 2006). Given media portrayals of petistas and antipetistas, our first hypothesis suggests simply that Brazilian voters overestimate the “stereotypical” group membership of both petistas and antipetistas.

**H1. Voters overestimate the share of partisans (petistas and antipetistas) who belong to “stereotypical” groups.**

Because voters form beliefs about the group basis of partisan composition via media exposure and by engaging in conversations about politics, interest and/or engagement in politics should be associated with stereotyping. Individuals who are active and interested in politics are more likely to fixate on stereotypes due to Kahneman and Tversky’s (1972) concept of “representativeness bias,” which exaggerates the prevalence of stereotypical groups among all those who make up a party’s base. Moreover, in Brazil, as elsewhere, there is a strong correlation between political interest and (positive and/or negative) partisanship. This suggests the following two hypotheses:

**H2. Positive and/or negative partisans will overestimate the share of petistas and antipetistas who belong to “stereotypical” groups to a greater extent than nonpartisans.**

**H3. Interest in politics should be associated with greater stereotyping of partisan groups.**
Once we determine whether and the extent to which voters stereotype the group composition of petistas and antipetistas, the key question is whether such misperceptions are associated with polarization. The greater the bias in perceived partisan group composition, the greater the perceptions of partisan extremism and of difference in the preferences of the groups, and the greater the feelings of social distance toward the partisan out-group. Stereotyping can drive polarization because it gives voters a mental shortcut to locate their own position on the issues vis-à-vis the other party’s supporters (Abramowitz and Saunders 2006; Kuo et al. 2017; Mutz 1998).

Misperceptions of partisan group membership should thus be associated with biased perceptions of political and social distance between rival parties, because voters typically associate relatively narrow policy demands with each party-stereotypical group (Ahler and Sood 2018b). For example, voters might assume that “the rich want lower taxes,” or “ethnic group ‘X’ wants policies that favor their group.” In short, although partisans in general should perceive greater polarization than nonpartisans, to the extent that voters overestimate the size of stereotypical groups as a proportion of a party’s supporters, they are more likely to conclude that those groups hold disproportionate sway within that party. This should fuel perceptions of policy extremism, which generates two additional hypotheses:

**H4.** Partisans will perceive greater polarization between petistas and antipetistas than nonpartisans do.

**H5.** Stereotyping will be associated with greater perceptions of polarization between petistas and antipetistas.

In the next section we describe how we measure our key concepts: partisanship, stereotyping, and perceptions of political and social polarization. Subsequently, we explore the relationships between these variables.

## 2. DATA AND MEASUREMENT

In early 2022, we fielded a nationally representative survey of 5,400 Brazilian adults through the Instituto Brasileiro de Pesquisa e Análise de Dados (Brazilian Institute of Research and Data Analysis, IBPAD), a private firm. In this section we describe how we defined and measured partisanship, stereotyping, and our measures of political and social polarization. In the subsequent section we use these to test our hypotheses.

### Defining Partisan Groups

Following Samuels and Zucco (2018), our survey first asked respondents both positive and negative partisanship questions to place them into one of three relevant groups: petistas, antipetistas, or nonpartisans. Our first question asked, “Is there a political party that you like?” If the response was positive, a follow-up question offered a drop-down list
of the nine largest parties in Brazil’s legislature at the time, plus an “other” category. Respondents who answered “yes” and “PT” were classified as petistas.

We identified antipetistas similarly. First, a negative partisanship question asked, “Is there a party that you do not like?” and again, if the response was positive, a follow-up question presented the same drop-down list (see appendix details). Antipetistas include anyone who said “yes” to the negative partisanship question and selected the PT as the party they do not like.

In line with other recent national surveys fielded around the same time as ours, 24 percent of respondents identified as petistas. In terms of antipetistas, Samuels and Zucco (2018) found that in 2014, 21 percent of Brazilians identified as such. Since Bolsonaro’s 2018 election, polarization in Brazil has intensified. Unsurprisingly therefore, 29 percent of respondents in our survey identified as antipetistas. We consider the remaining 47 percent of respondents to be nonpartisans, which is also in line with long-term estimates (see appendix B for further details).

For those who answered “yes” to the positive or negative partisanship questions, we also measured the strength of partisanship by asking whether respondents considered themselves a “typical” petista or antipetista. Of the 24 percent of respondents who identified as a petista, about 40 percent (10 percent of all respondents) said they considered themselves “typical.” We refer to these as “strong” petistas. Meanwhile, of the 29 percent of respondents who disliked the PT, about two-thirds (17 percent of all respondents) considered themselves “strong” antipetistas.

Measuring Partisan Stereotyping

To explore partisan stereotypes, we first had to establish the true proportions of partisans who belong to different demographic groups. We asked all respondents about their (1) income, (2) race, (3) state of residence, (4) gender, (5) religion, and (6) age. Answers to these questions provide the actual, real-world distribution of social groups both in the electorate overall and within each partisan group.

Combining partisanship with these demographic questions allows us to reveal which groups are, in fact, over- or underrepresented among petistas and antipetistas. In figure 1, the circles provide the percentage by which different demographic groups among petistas and antipetistas are over- or underrepresented as compared against their actual proportion in Brazil’s overall population. That is, if the circle is found at zero, the group in question is represented among petistas and antipetistas similarly to its proportion in the overall population.

Among petistas, actually overrepresented groups include those with low income, those from Brazil’s Northeast region, nonwhites, women, and voters who are irreligious (agnostic and atheist). Among antipetistas, overrepresented groups include whites, evangelical Protestants, older and high-income voters, and men. The degree of over- or underrepresentation in figure 1 is measured in absolute terms, meaning that small differences can be substantively important if the group in question has relatively few members in society—as is the case, for example, with rich voters and irreligious people.
Our next step assessed respondents’ perceptions of the size of different groups among petistas and antipetistas. To do so, we asked participants to estimate the percentage of petistas and/or antipetistas in each party-stereotypical group. We relied on common tropes in Brazilian media about supporters and opponents of the PT (Davis and Straubhaar 2020; Evangelista and Bruno 2019; Pinheiro-Machado and de Freixo 2019; Prado 2021), and included only standard demographic categories rather than sensitive groups that might have returned inaccurate self-classification to begin with (e.g., LGBTQ+ people).

As such, we asked participants to estimate the percentage of petistas who are (1) low-income earners (those who earn up to twice Brazil’s monthly minimum wage); (2) nonwhite (those who self-identify as Black or brown as opposed to white or “yellow,” the standard census categories in Brazil); (3) from states in Brazil’s Northeast region; (4) women; and (5) irreligious (i.e., those who self-identify as atheistic or agnostic as opposed to Catholic, evangelical Christian, or another religion). Similarly, we asked respondents to estimate the proportion of antipetistas who (1) are older (the category “60 years or older” in our survey); (2) earn more than 20 times the monthly minimum wage; (3) identify as evangelicals; (4) are white; and (5) are men.

Respondents typed their estimate, between 0 and 100, in a box next to each group. The order of petista and antipetista batteries was randomized, as was the order of groups within each battery. We then compared respondents’ estimates with the true percentages in each category, as reported above. Thus, although figure 1 revealed that several demographic groups are in fact overrepresented relative to the population among either petistas or antipetistas, figure 2 reveals that when we compare the actual
percentages against perceived group composition, we see that voters systematically stereotype, overestimating the share of particular groups among supporters of each side.

For nine out of the 10 categories, participants overestimated the proportion of each group among petistas and/or antipetistas. For example, figure 2 shows that Brazilians believe that older, high-income, and Protestant (evangelical Christian) individuals comprise a substantially larger proportion of antipetistas than they actually do. Likewise, they believe that poor people, Northeasterners, and irreligious people comprise a substantially larger proportion of petistas than they actually do. The smallest misperceptions are racial: on average, Brazilian voters estimate that about 59 percent of petistas are nonwhite, and 59 percent of antipetistas white. These misperceptions are only slightly higher than the true proportions.

Figure 2 provides a snapshot that summarizes the extent of stereotyping across all respondents. Of course, individual (mis)perceptions might differ dramatically from the average. Thus, our next step was to create an individual-level indicator that summarizes the extent to which respondents stereotype about the composition of each partisan group. To do so we calculated a variation of Ahler and Sood’s (2018b) “Average Perceptual Bias” (APB) score, which averages individuals’ estimates of the proportion of different stereotypical categories. For each group category $j$ and each individual $i$, APB is calculated as follows:

\[
\text{APB}_{ij} = \frac{1}{N} \sum_{j=1}^{10} |\hat{p}_{ij} - p_j|,
\]

where $\hat{p}_{ij}$ is the perceived proportion of group $j$ among respondents, and $p_j$ is the actual proportion of group $j$ among petistas and antipetistas.
\[
APB^g_i = \frac{1}{n_i} \sum_{j=1}^J \text{EstimatedPct}^g_{ij} - \text{TruePct}^g_j
\]

where EstimatedPct\(_{ij}^g\) is respondent \(i\)'s perception of the share of group \(g\) that belongs to stereotypical category \(j\) \(j \in [1, 5]\) and TruePct\(_j^g\) is the true share of group \(g\) that belongs to stereotypical category \(j\), both of which were computed from answers respondents gave to our survey. (This means, of course, that APB can be negative or positive.)

Are respondents’ partisan stereotypes systematic, or random? If the former, APB should be positive for each voter, for each party. We find that 90 percent of all individuals consistently overestimate perceptions of group membership of petistas, and 93 percent do so toward antipetistas, suggesting that stereotyping is systematic across most voters.

Thus far, we have provided initial evidence supporting H1. On average, Brazilian voters do stereotype the demographic bases of both petismo and antipetismo. We also defined how we calculate Average Perceptual Bias, which assesses the average degree to which individuals stereotype, in expected directions, the demographic composition of both partisan groups. In section 3 below, we use APB as the principal independent variable to assess our hypotheses that stereotyping is associated with political and social polarization.

Measuring Policy Polarization

Once we have assessed the partisanship of respondents and their (mis)perceptions of partisan group composition, we need a measure of their perceptions of polarization. To do so, we first asked where respondents stood on five policy propositions, randomly chosen out of a set of 10 that are listed in table 1. For each issue, we asked respondents how much they agreed or disagreed with the policy, on a four-point Likert scale. To facilitate interpretation of results, we recoded the polarity of the answers so that for all questions the results express the degree to which respondents agree with the conservative position. We then computed the proportion of each partisan group that agreed with the conservative position in each statement by combining the “agree completely” and “agree” answers.

Perceptions of polarization, of course, may differ widely from the actual degree to which petistas and antipetistas differ on policy. Petistas and antipetistas may believe, for example, that members of the two groups are much further apart on a particular policy than they actually are. To assess perceptions of partisan polarization, we asked respondents to estimate the percentage of petistas and antipetistas who agreed with the same policy statements, on a 0–100 scale. Figure 3 shows the gap between the actual proportion of members of each partisan group who agree with the conservative position for each proposition and the perceived gap between petistas and antipetistas, among all respondents. In figure 3, if either the actual level of support for a policy or the perceived level of support for a policy in both partisan groups is exactly the same, the gap between groups will be zero. Cases where more petistas than antipetistas take

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the conservative position will generate a “positive” policy gap (greater than zero), while
the opposite situation will generate a “negative” policy gap (less than zero).

For example, suppose that half of petistas agree with the conservative position
while 60 percent of antipetistas do. We calculate the policy gap by subtracting the
share of antipetistas who agree with the conservative position from the share of petistas
who agree with the same position. In this case, the result would be —10. Because
petistas are almost always less conservative than antipetistas and because voters tend to
perceive petistas as less conservative than antipetistas, both the actual and perceived
differences in the figure are almost always negative.

Focusing first on the empty circles (the true differences), figure 3 reveals that on
some issues—appointment of military or police officials to government positions,
same sex marriage, criminal conviction disallowing political candidacies, gun control,
and abortion—petistas and antipetistas hold substantively distinct positions (greater
than 20 points, on average). In contrast, other issues—the environment, gas prices,
and reducing inequality—petistas and antipetistas hold nearly the same views (less
than a 10-point difference). Finally, on church tax exemptions, petistas and
antipetistas hold almost exactly the same views.

Table 1. Wording of Issue Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Inverted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The government should adopt strong policies to combat deforestation and to preserve the environment.</td>
<td>Yes</td>
</tr>
<tr>
<td>2. The government should be obliged to combat racism and racial discrimination.</td>
<td>Yes</td>
</tr>
<tr>
<td>3. Military personnel and police officers currently serving should be prohibited from working in politically appointed positions in the federal government.</td>
<td>Yes</td>
</tr>
<tr>
<td>4. Individuals who’ve lost all judicial appeals in criminal court should be prohibited from running for elective office.</td>
<td>No</td>
</tr>
<tr>
<td>5. The government should facilitate access to possession of and carrying of firearms.</td>
<td>No</td>
</tr>
<tr>
<td>6. The government should implement policies that reduce income inequality in Brazil.</td>
<td>Yes</td>
</tr>
<tr>
<td>7. Homosexual couples should have the right to legally marry.</td>
<td>Yes</td>
</tr>
<tr>
<td>8. The government should intervene to limit excessive increases in the price of household cooking gas.</td>
<td>Yes</td>
</tr>
<tr>
<td>9. The government should maintain the policy of not charging taxes on churches, as is the policy today.</td>
<td>No</td>
</tr>
<tr>
<td>10. Abortion, in the early stages of pregnancy, should be decriminalized and available through the public health service.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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Meanwhile, the solid circles reveal that in almost every case, perceptions of policy differences diverge from the true differences. Figure 3 shows that for five items, voters believe that differences between petistas and antipetistas are larger than they actually are. Notice, however, that perceived differences are larger than actual differences only for policy issues where petistas and antipetistas actually hold relatively similar positions. For example, respondents believe that petistas are much less conservative than antipetistas on the question of reducing inequality than they actually are. In fact, antipetistas and petistas do not differ a great deal on this question. In contrast, on issues where members of the two groups actually disagree to a greater extent, voters on average believe the two partisan groups are closer to each other than they actually are. For one issue—limiting the appointment of active military personnel to political positions—perceived differences among all respondents are much smaller than actual differences.

Some of the counterintuitive results in figure 3 may derive from the fact that the figure assesses and pools the true and perceived gaps among all participants in our survey—partisans as well as nonpartisans. On average, Brazilian voters do tend to see petistas as less conservative than antipetistas. However, perceptions of policy differences may vary both within and between petistas and antipetistas. In section 3 below, to assess these “perception gaps” at the individual level, we use two distinct measures. Our first is the Policy Perception Gap (PPG, $Gap_{ij}$), which takes the
absolute differences in the estimates each individual gives for the share of petistas and antipetistas who adopt the conservative position on five policy questions randomly selected out of our list of 10. The average PPG in the entire sample is 35, with a standard deviation of 32.9

Our second measure of perceived polarization follows Ahler and Sood (2018b) to indicate the share of each group $g$ \in {petista, antipetista} that each respondent $i$ thinks takes on the conservative position on each issue $j$. Every respondent estimated this share 10 times—once for both petistas and antipetistas for the five issues they evaluated.10

Why two measures? The first is an aggregate indicator of perceived policy polarization, by respondent. It measures the overall perceived “distance” between the partisan groups, which is why we use absolute values. However, this measure does not tell us whether these differences are driven by perceptions of either or both groups. By contrast, our second measure considers the extent to which each respondent expects members of each partisan group to hold group-consistent policy attitudes on a liberal–conservative scale. It is defined for each respondent separately for their attitudes toward petistas and antipetistas, therefore allowing us to capture differences in perceptions toward each group separately.

Measuring Perceived Social Distance

As just explained, we expect Average Perceptual Bias—stereotyping—to be associated with both of our measures of policy polarization. In addition, we expect stereotyping to be associated with perceived “social distance” between petistas and antipetistas, a form of social polarization. We measured social distance with a battery of questions that asked respondents how close or distant they felt toward the partisan out-group, on a five-point Likert scale. Table 2 provides the wording of all items. We averaged these responses into a Partisan Social Distance Index (PSDI) (toward the out-group), measured for each individual, following Ahler and Sood (2018b). Respondents only answered questions related to their out-group. That is, the petista/Lula versions of the questions were presented to antipetistas, while the antipetista/Bolsonaro versions were presented to petistas.11 In the next section, we also use partisan social distance toward the out-group as a dependent variable to assess H5.

Table 2. Wording of the Social Distance Questions

<table>
<thead>
<tr>
<th>Thinking of the situations below, how happy or unhappy would you feel in each case?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The marriage of a close relative with a [petista][antipetista]</td>
</tr>
<tr>
<td>Having to work with someone who [supports][opposes] the PT and who likes to talk about politics at work</td>
</tr>
<tr>
<td>A neighbor who puts up a sign that says [“Bolsonaro for president”][“Lula for president”]</td>
</tr>
<tr>
<td>If [Bolsonaro][Lula] received a medal from an international organization for his work</td>
</tr>
</tbody>
</table>

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3. Partisan Stereotyping and Polarization

Having presented our key measures, we now assess the strength of empirical support for our hypotheses relating partisan stereotyping to different forms of polarization. First, we explore H2, breaking respondents down by (the strength of) their partisan attachments. We then consider H3, exploring the impact of political interest on stereotyping. We then turn to our two hypotheses about perceived policy polarization, H4—that partisans will perceive greater polarization distance between petistas and antipetistas than nonpartisans—and H5—that stereotyping should also be associated with greater perceived polarization between the two partisan groups, controlling for partisanship and interest in politics.

Patterns of Partisan Stereotyping

Figure 2 showed that all voters stereotype. Building on previous support for H1 (that all voters misperceive the share of partisans who belong to stereotypical groups), figure 4 reports the Average Perceptual Bias toward petistas and antipetistas. This figure differentiates “strong” petistas and antipetistas from other partisans, and compares them against nonpartisans. These results thus put H2 to the test, revealing the extent of stereotyping by partisan group.

The results for “strong petistas” and “petistas” in the left and right panels indicate that petistas stereotype themselves to about the same degree as they stereotype antipetistas (a little less than 30 points on average; the difference is not statistically significant). Nonpartisans, for their part, stereotype antipetistas about five points more on average than they do petistas. Meanwhile, somewhat surprisingly, antipetistas (including “strong” antipetistas) stereotype petistas significantly less than they stereotype themselves—the difference is about fourteen points. To be sure, on average antipetistas still overestimate the proportion of “stereotypical” groups that make up the PT’s base (by about 14 points). However, they exaggerate the stereotypical composition of their own base even more.

These results contrast with what Ahler and Sood (2018b, 965) reported for the United States, where partisans stereotype more than nonpartisans and partisans stereotype the composition of the out-party’s base more than their own party’s. In Brazil, everyone stereotypes the composition of petistas’ and antipetistas’ bases, and neither positive nor negative partisans stereotype the out-group more than their own in-group.

These findings are somewhat surprising for two reasons. First, although scholars have focused on the virulence of antipetismo in recent years (Lacerda 2019; Lynch and Cassimiro 2022; Nicolau 2020; Prado 2021), our results indicate that everyone in Brazil stereotypes, including petistas and voters with no particular partisan leaning. Second, our results confound social-psychological theories that suggest individuals tend to exaggerate the weight of negative versus positive information (about disliked groups, in this case) (Rozin and Royzman 2001). The potentially distinct psychological motivations driving partisan stereotyping in Brazil versus the United
States merit further exploration, and we return to this question in our conclusion. In any case, explaining this contrast is beyond the scope of the present paper. Here, our goals are to confirm that voters stereotype—both their own group and the opposing group—and then confirm that stereotyping shapes polarization.

Finally, figure 5 reports Average Perceptual Bias toward petistas and antipetistas—the same measure in the previous figure—according to level of political interest. These figures evaluate H3, which suggests that interest in politics should be correlated with stereotyping. On the one hand, stereotyping of antipetistas follows expectations, with high-interest individuals holding more biased perceptions about that group’s composition. Yet on the other hand, there is no evidence that interest in politics is correlated with stereotyping of petistas.
Additional research is necessary to understand why even low-interest voters stereotype both sides to such a significant degree (about 20 points for petistas and 25 points for antipetistas), and why level of political interest among all voters is unrelated to stereotyping of petistas. At any rate, the finding for antipetistas suggests that it remains important for us to control for interest in politics moving forward.

What emerges most clearly from our results thus far is confirmation of H1: in Brazil, everyone stereotypes both petistas and antipetistas—including nonpartisans and those with low political interest. When we test for whether partisanship and/or interest in politics (H2 and H3) attenuates this relationship, the results are mixed. These results suggest that we should continue to control for both partisanship and interest in politics as we test the remaining hypotheses, which explore the relationship between stereotyping and perceptions of polarization.

Perceived Policy Polarization

All Brazilian voters stereotype the group composition of petistas and antipetistas, to greater or lesser degrees. Not surprisingly, they all also perceive policy differences between partisan groups. However, confirming H4, table 3 reveals that partisans perceive significantly larger PPGs between groups than nonpartisans. To obtain these results, recall that we pooled responses to all policies listed in table 1 by individual, and then controlled for partisan group and political interest.

Starting with model 1, the intercept suggests that nonpartisans estimate that the share of antipetistas who take the conservative position to be about 29 points higher than the share of petistas who take that position, on average across all issues. Results from that same model also confirm that partisans perceive greater polarization between partisan groups, by approximately 10 points each.

These results remain unchanged in model 2 when we control for issue fixed effects. Model 3 offers further confirmation of the independent effect of partisanship on perceived polarization. As hypothesized, controlling for respondents’ interest in politics reduces but does not wash out the effect of partisanship on perceived polarization. Taken together, these results suggest that although all Brazilians perceive large policy differences between petistas and antipetistas (even nonpartisans, who tend to exhibit a low degree of interest in politics), perceived polarization is higher among partisans on both sides.

Does Stereotyping Drive Polarization?

We now arrive at the crux of the matter. We have shown that everyone stereotypes and that everyone perceives considerable policy polarization between petistas and antipetistas, but that partisans tend to perceive even more polarization between the two groups. At this point we will test H5, the extent to which perceived polarization is a function of stereotyping, controlling for partisanship and political interest.

In this section we use both of our measures of perceived polarization. We already know from table 3 that partisans see larger policy gaps between groups than
nonpartisans, but now we want to know whether perceptions of policy polarization are also associated with Average Perceptual Bias—that is, with stereotyping. To start, we estimate the following equation with the PPG as the outcome variable:

$$\text{Gap}_{ij} = \beta_1 \text{APB}_i^g + X_i + \phi_j + \epsilon_{ij}$$

where $\text{APB}_i^g$ is the average level of stereotyping of group composition by respondent $i$ toward group $g$, $X_i$ is a set of covariates including indicators for whether the respondent was petista or antipetista (nonpartisans are the baseline category) and an indicator for high interest in politics, and $\phi_j$ are issue fixed effects. Standard errors are clustered at the respondent level (each respondent answered five different questions).

We estimate variations of equation 2 separately for APB toward each party. H5 leads us to expect a positive value on all coefficients on APB, which would indicate that stereotyping enhances perceptions of policy polarization between petistas and antipetistas. Table 4 confirms this expectation. The six models report the association between stereotyping and PPG for petistas and antipetistas separately. The first three models show that as APB toward petistas increases, so do perceived issue differences between the two partisan groups. Meanwhile, the last three models show that stereotyping (APB) toward antipetistas is even more powerfully associated with perceptions of that group’s average policy position. The coefficients on APB are either strengthened (in the case of stereotyping of petistas) or hold up (in the case of bias toward antipetistas) once we control for partisanship and interest in politics. These results are solid and clear: the more a person stereotypes, the greater the perceived policy polarization.

What is the substantive significance of the coefficients on APB in table 4? For example, model 2 suggests that a one standard deviation increase in APB toward
petistas (row 1) is associated with an increase in the perceived gap between petistas’ and antipetistas’ policy views of about 2.1 points. Results for APB toward antipetistas (row 2) are stronger, with a one standard deviation increase in APB associated with an increase in 5.1 points in perceived policy polarization. Respondents who stereotype to an even greater degree tend to perceive an even larger gap between the groups—up to 19 points for bias toward antipetistas and 7 points for bias toward petistas.

These results suggest that (1) everyone stereotypes petistas’ and antipetistas’ demographic group composition, and (2) everyone also perceives policy differences between petistas and antipetistas. Specifically, an average nonpartisan who is not interested in politics sees a difference of about 30 percentage points in the share of petistas and antipetistas who take the conservative position on the issues. However, partisans perceive even greater policy gaps between the two sides, by up to about 10 points on a 100-point scale (see above). What is more, as predicted, Average Perceptual Bias—stereotyping—further exacerbates these perceptions of polarization between petistas and antipetistas. An individual with a median level of APB toward the PT sees the partisan groups as about three points further apart, while a respondent with a median level of APB toward antipetistas adds about eight additional points.

All in all, for partisans on both sides, adding in an average level of stereotyping increases the perceived policy gap by about another 11 points—an increase of about 25 percent over and above the effect for everyone (about 30 points) and the effect of partisanship (about 10 points)—to about 50 points on the 100-point scale. All voters perceive some degree of polarization between petistas and antipetistas. Partisans

### Table 4. People Who Stereotype More Perceive Greater Differences between Groups

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APB^PT</td>
<td>0.06</td>
<td>0.11***</td>
<td>0.11***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APB^anti^PT</td>
<td></td>
<td>0.27***</td>
<td>0.27***</td>
<td>0.24***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petista</td>
<td>9.34***</td>
<td>6.42***</td>
<td>9.10***</td>
<td>6.4**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.86)</td>
<td>(0.86)</td>
<td>(2.11)</td>
<td>(2.12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antipetista</td>
<td>6.87***</td>
<td>5.22***</td>
<td>1.05***</td>
<td>8.32***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.76)</td>
<td>(0.76)</td>
<td>(2.14)</td>
<td>(2.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High interest</td>
<td>10.57***</td>
<td></td>
<td></td>
<td>11.24***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.67)</td>
<td></td>
<td></td>
<td></td>
<td>(1.64)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>27,000</td>
<td>27,000</td>
<td>27,000</td>
<td>27,000</td>
<td>27,000</td>
<td>27,000</td>
</tr>
<tr>
<td>Individuals</td>
<td>5,400</td>
<td>5,400</td>
<td>5,400</td>
<td>5,400</td>
<td>5,400</td>
<td>5,400</td>
</tr>
</tbody>
</table>

*** p < 0.001; ** p < 0.01; * p < 0.05; p < 0.1
perceive even more—but stereotyping among partisans further exacerbates the perceived distance between partisan groups.

To further support H5, we now assess polarization using our second measure of perceived policy polarization. Here, instead of assessing the “gap” between groups, we measure the degree to which respondents believe petistas and antipetistas take the conservative position on policy questions. To estimate the relationship between partisan stereotyping (APB) and this measure of polarization, we use the following equation:

\[ \text{Conservative}^g_{ij} = \beta_1 \text{APB}^g_i + X_i + \phi_j + \epsilon^g_{ij} \]

where the outcome is the percentage of group \( g \) that respondent \( i \) believes takes on the conservative position on issue \( j \). The right-hand terms are defined exactly as in equation 2, above. We estimated this equation with and without control variables (represented by \( X_j \)), all of which are dichotomous and measured at the level of the individual (whether individuals are petista or antipetista, and whether they are highly interested in politics). We also included issue fixed effects (\( \phi_j \)), and clustered standard errors by individuals.

Per H5, we expect stereotyping (measured by APB) of group \( g \) to be associated with respondents’ perceptions of greater group-consistent policy positions for each group. That is, stereotyping should be associated with stronger beliefs that antipetistas will be more likely and petistas less likely to adopt the conservative position on each policy question. Because the group-consistent position for antipetistas on all issues is conservative, and because we coded conservative positions as having higher values, for this measure we expect positive coefficients on APB for antipetistas but negative coefficients for petistas.

As above, table 5 presents our results separately for petistas (the first three models) and antipetistas (the last three models). Greater APB toward petistas is indeed associated with perceiving petistas as less likely to adopt conservative positions and antipetistas as more likely to do so. Substantively, a one standard deviation change in APB about petistas is associated with about a 0.1 standard deviation change in the perceived share of group members taking on group-consistent positions. In comparison with a respondent who does not stereotype at all (APB = 0), an individual with extreme APB toward petistas will believe petistas are about 10 points “more progressive,” while extreme bias in the other direction is associated with an increase in the belief that antipetistas will take the conservative position by eight points. As the theory suggests, people who believe stereotypical groups dominate the support base of either side also tend to believe that the other side takes more extreme political positions than their own side.

Results in table 5 also indicate that stereotyping is associated with perceptions of polarization (of each side taking “group-consistent” positions) even when controlling for partisan group membership (models 2 and 5) as well as political interest (models 3 and 6). Overall, our results are strikingly similar to Ahler and Sood (2018b), even though Brazil’s highly fragmented party system is rather different from the two-party system in the United States.
Table 5. People with Strongest Partisan Group Stereotypes See Partisans as More Likely to Take Group-Consistent Policy Positions

<table>
<thead>
<tr>
<th></th>
<th>Proportion PT Conservative</th>
<th>Proportion AntiPT Conservative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>APB&lt;sub&gt;PT&lt;/sub&gt;</td>
<td>−0.17***</td>
<td>−0.16***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>APB&lt;sub&gt;antiPT&lt;/sub&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petista</td>
<td>−4.26***</td>
<td>−2.50***</td>
</tr>
<tr>
<td></td>
<td>(1.28)</td>
<td>(0.49)</td>
</tr>
<tr>
<td>Antipetista</td>
<td>0.17</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>(1.36)</td>
<td>(0.50)</td>
</tr>
<tr>
<td>High interest</td>
<td></td>
<td>−4.94***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.41)</td>
</tr>
<tr>
<td>N</td>
<td>27,000</td>
<td>27,000</td>
</tr>
<tr>
<td>Individuals</td>
<td>5,400</td>
<td>5,400</td>
</tr>
</tbody>
</table>

*** p < 0.001; ** p < 0.01; * p < 0.05; p < 0.1
In summary, we find strong support for H5 across our two measures of perceived policy polarization. Partisans perceive greater polarization than nonpartisans, and stereotyping of the composition of partisan groups tends to compound this dynamic, adding to perceptions of policy extremism between petistas and antipetistas.

**Is Stereotyping Related to Desire for Social Distance between Partisan Groups?**

Our final analysis explores the relationship between partisan stereotyping and our second form of polarization: individuals’ desire for social distance between partisan groups. The main explanatory variable is, again, our APB indicator of average group stereotyping. As described above, our outcome measure here is the PSDI constructed by combining answers to a four-item question battery. Analysis is similar to the previous estimations, but our outcome toward each group is now estimated at the individual level (as opposed to individual-issue level). Hence, we estimate variants of the following model:

\[ PSDI^g_i = \beta_1 APB^g_i + X_i + \epsilon^g_i \]

In contrast to our analyses of perceived policy distance, where we asked partisans to assess themselves, petistas, and antipetistas, \( PSDI^g_i \) is measured only toward an individual’s “out-group.” Given this, we exclude nonpartisans from further analysis. That is, we estimate separate regressions for subsets of individuals for whom the out-group is either petistas or antipetistas, and subsequently pool the two groups.

Our PSDI was constructed such that higher values mean (desire for) greater social distance, and given this, H5 implies that estimates for \( \beta_1 \) should be positive. Table 6 confirms that APB is indeed associated with desire for greater social distance for petistas relative to antipetistas. Results for antipetistas relative to petistas are in the expected direction, but the coefficient is smaller and noisier. However, when we pool the two groups (models 5 and 6), results are statistically significant and hold even when we control for partisanship and political interest. In short, results again confirm that stereotyping is associated with a desire for greater social distance from those in a partisan out-group, as well as with greater perceived policy distance.

**Conclusion**

What are the roots of partisan polarization in Brazil? To some extent, the answer to this question is rooted in perceptions of policy differences. As our results reveal, even Brazilians who are relatively uninterested in politics and who have no partisan leanings already believe that petistas and antipetistas hold distinct policy views. Moreover, unsurprisingly, petistas and antipetistas believe the distance between groups to be even larger. That is, partisanship itself contributes to perceptions of polarization.

In this paper we showed that misperceptions of the group composition of both sides’ bases of support further exacerbate perceived policy polarization. That is, polarization in Brazil is not just about whether voters like or dislike a party and the
policies it stands for. It is also rooted in voters’ biased perceptions of partisan group composition and their like or dislike for those groups and their demands.

Polarization in Brazil has deepened in recent decades. As Samuels and Zucco (2018) explain, antipetismo grew—and grew in intensity—in tandem with the rise of the PT in the 1980s and 90s. However, although all nine second-round presidential elections since 1989 have been between the PT’s candidate and a rival party’s candidate, polarization between petistas and antipetistas has grown only slowly. For much of the past 30-plus years, conservative Brazilians did not have a viable presidential candidate or a party to represent their interests. Instead, in presidential elections between 1994 and 2014 Brazilian voters faced a choice between the PT’s candidates and a centrist from the Party of Brazilian Social Democracy (PSDB). Only since 2018 has the PT-PSDB duopoly been broken, when the PSDB faded and a standard-bearer emerged for conservative voters. Still, no conservative party has emerged to help cultivate antipetismo.

Our results highlight that polarization can emerge in multiparty contexts just as easily as in two-party systems, and even where one group of voters develops only negative partisan attitudes. They also suggest that stereotyping is not merely a province of right-wing Brazilians. Instead, both sides stereotype themselves as well as their rivals.

### Table 6. Stereotyping Is Associated with Desire for Greater Social Distance from the Out-Group

<table>
<thead>
<tr>
<th></th>
<th>Rel. to PT</th>
<th>Rel. to antiPT</th>
<th>Rel. to out-group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>APB^{PT}</td>
<td>0.002</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td>(0.003)</td>
<td></td>
</tr>
<tr>
<td>APB^{antiPT}</td>
<td>0.010***</td>
<td>0.009***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.003)</td>
<td>(0.002)</td>
<td></td>
</tr>
<tr>
<td>APB^{outgroup}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extreme partisan</td>
<td>0.413***</td>
<td>0.091</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.121)</td>
<td>(0.130)</td>
<td></td>
</tr>
<tr>
<td>Antipetista</td>
<td>0.111</td>
<td>0.148</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.091)</td>
<td>(0.114)</td>
<td></td>
</tr>
<tr>
<td>High interest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1,248</td>
<td>1,248</td>
<td>1,001</td>
</tr>
</tbody>
</table>

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; $p < 0.1$
It is true that petistas tend to stereotype themselves somewhat more than they stereotype antipetistas, while antipetistas stereotype themselves and petistas equally. Petistas may stereotype themselves more than antipetistas because over the years the PT has strategically sought to construct its own brand, seeking to build mass support among voters (Samuels 1999). This may have shaped petistas’ self-perceptions more than it shaped their perceptions of out-groups. And after all, no rival partisan out-group exists for petistas to compare themselves against directly. Meanwhile, for antipetistas, although no party organization has shaped their attitudes, negative media coverage about the PT (which petistas tend to discount) may weigh more heavily, contributing to stereotyping of the out-group. It remains unclear how and why so many voters stereotype antipetistas to such an extent, even controlling for interest in politics. Future research should explore the sources of such stereotypes.

In any case, our results tend to support both the affective notion of partisanship—that is, that partisanship reflects sympathy with or antipathy for different social groups (e.g., race, class, gender)—as well as the cognitive/instrumental approach to partisanship—that is, that polarization is mainly about policy differences (Huddy and Bankert 2017). In the affective approach, polarization is a function of positive and/or negative partisan affect itself, rooted in social group affinities and antipathies. However, we found that stereotyping can account for only part of perceived political and social divides between antipetistas and petistas. In Brazil, even nonpartisans perceive a fairly wide policy gap between supporters of each side. And even without taking stereotyping into consideration, partisan attitudes themselves explain most of the remaining perceived policy gap and desire for social distance from the “out-group.”

It is impossible to fully disentangle the affective and cognitive dimensions of polarization. Our findings suggest that stereotyping heightens existing polarization due to policy or ideological differences. On what issues do petistas and antipetistas diverge? Our results suggest that polarization is stronger on cultural issues and issues related to crime and security (figure 3) than on economic issues or the environment. The issues that more profoundly divide voters in Brazil (as elsewhere in contemporary Latin America) do not easily map onto a traditional left–right axis. There is more to the story of polarization than just stereotyping, and the challenge is to figure out how the affective, ideological, and programmatic aspects of polarization interact, reinforce, or even exaggerate each other. We leave the question of the relative contributions of ideology, policy, and other factors to future research.

This paper is part of a larger research program exploring why partisans misperceive the group composition of each side’s support base, and how attitudes about those groups contribute to perceptions of policy extremism. Just as Ahler and Sood (2018b) do for the United States, we suspect that stereotypes and perceived policy differences are connected. That is, stereotypes about party composition shape voters’ beliefs about each side’s policy priorities. For example, antipetistas who misperceive the proportion of petistas who are nonwhite or women may also believe that “identitarian” issues are far more important to the PT’s agenda than petistas themselves believe. Similarly, petistas who overestimate the proportion of antipetistas who are wealthy may conclude that their opponents are motivated by economic concerns relatively more than petistas who
overestimate the proportion of antipetistas who are evangelical Christians. In general, people who overestimate the size of party-stereotypical groups will tend to believe that those groups hold disproportionate power, fueling the perception that each side is both intransigent and captive to narrow interests.

ACKNOWLEDGMENTS

We thank Ken Roberts and participants at the 2023 APSA meeting in Los Angeles for comments on an earlier version of this paper. UMN IRB approval for study 00015208 granted February 14, 2022.

SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit https://doi.org/10.1017/lap.2023.38. Replication materials are available in Harvard Dataverse at https://doi.org/10.7910/DVN/CRANGT.

NOTES


2. During the run-up to the 2018 election, some antipetistas claimed to identify with the Social Liberal Party (PSL), which Bolsonaro had joined. However, he left that party a few months after the election. In 2022 some antipetistas claimed an attachment to the Liberal Party (PL), which Bolsonaro joined in order to run for reelection. We consider both PSL and PL “partisanship” as epiphenomenal and theoretically irrelevant.

3. About half of Brazil’s voters express neither positive nor negative partisan attitudes, and most of these voters are relatively politically disengaged and uninformed (Samuels and Zucco 2018). We consider such voters to be “nonpartisans.” It is important to note that in his presidential campaigns, Bolsonaro received about the same number of votes from “nonpartisans”—people who have no opinion about the PT (or any other party)—as he did from people who profess a specific dislike of the PT. Likewise, in his own six presidential campaigns, the PT’s historic leader Lula has always received many more votes, in absolute terms, from “nonpartisans” than from petistas.

4. On the roots of a potential emerging racial cleavage, see Porto (2023) or Bernardino-Costa (2023).

5. For details on our sample and our questionnaire, see the appendix.

6. Our survey included a few filler categories, but we focus analysis only on those we considered ex ante potentially stereotypical. All analysis that follows includes sampling weights; please see the appendix for more information.

7. Ahler and Sood (2018b) divide the absolute differences in perceptions by the true value. We did not do this, to avoid having the indicator be driven by strong variation in true values, which range from 5 to 65 across our stereotypical categories. Consider the following example: For one social category, the true prevalence in the population is 5 percent, while respondents
believe it to be 25 percent. For another social category, the true proportion in the population is 65 percent, while people believe it to be 85 percent. In Ahler and Sood's formulation, the perceptual bias in the first would be $25/5$, and in the second $85/65$—a much larger bias for the first case. In our formulation, both categories are overestimated by 20 points.

8. Although many believe that petistas and antipetistas differ on questions of reducing inequality (Lacerda 2019), Samuels and Zucco (2018, 40) found that petistas and antipetistas also did not differ on general questions about reducing inequality. Only when such policies are explicitly connected to the PT do voters polarize. Additional research is necessary to fully reveal the extent to which different policies divide petistas from antipetistas in the absence of partisan cueing.

9. To operationalize PPG we use absolute values. However, in figure 3, to illustrate perceived and actual differences we use both negative and positive values.

10. The overall mean for this variable for petistas and antipetistas across all issues and all respondents was 35 (st. dev. = 30) and 53 (st. dev. = 32). This means that, on average, respondents think that more than half of antipetistas hold conservative positions on all issues, but only about one-third of petistas do so. The average value of the perception of conservatism on each of the 10 issues ranged from 25 (racial justice) to 45 (church tax exemptions) for petistas while for antipetistas it ranged from 37 (gas prices) to 72 (facilitate guns).

11. Nonpartisans are excluded from the current analysis. The Cronbach’s alpha for the resulting four-item social distance scale was 0.73 toward petistas and 0.78 toward antipetistas.

12. We include partisan intensity here because in contrast to previous models where nonpartisans provided a baseline, everyone in these models is a partisan.

REFERENCES


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