Measuring and Explaining Affective Polarization Within and Against the Mainstream: Evidence from Brazil

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This is a preliminary draft. Please, do not circulate. This version presents results from a pre-test of an experimental study. It aims at collecting feedback to improve especially the experimental design, since a new experiment will be conducted online with a larger sample in the second semester of 2019.

Abstract

Traditional survey questions to assess party identification and negative partisanship have generally relied on binary choices, therefore missing the large variation of sentiments that exist between ‘never voting for a party’ and ‘identifying with a party.’ Feeling thermometers that measure party affect, that is, asking respondents how much they like a political party (or its supporters), capture these variations. Furthermore, they allow measuring the individual level of affective polarization within two-party contests. In this paper, I use this measurement to study polarization in Brazil, a developing country where partisanship is considerably low. I begin by reviewing the literature, which generally points out at the center-left PT as the only party with a significant number of partisans. Party affect shows strong attachment to the center-right PSDB. Next, I use the recent election of an anti-mainstream president to study two types of affective polarization: within and against the mainstream. Finally, I test how ideological radicalism, political disillusionment, and institutional distrust affect these two types of polarization based on longitudinal survey data (2002-2014) and an experiment fielded in Brazil in the first semester of 2019.

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During the current decade, Brazil has seen some of the largest demonstrations in its history (Friendly 2016). While the main ones were organized against the center-left government (Avritzer 2017; Mourão 2019; Saad-Filho and Boito 2016), social movements reacted by rallying in defense of the president (Alonso 2017). However, media outlets reported that unions were giving out roughly $10 and low-cost mortadella sandwiches to attract participants (Agostine 2015; Folhapress 2018). In no time, center-left leaners were nicknamed *mortadelas* (following the Portuguese spelling). The left reacted again, this time, by recycling an old nickname of the elites: *coxinas* (Viri, Lima, and Agostine 2015). A Brazilian snack, similar to chicken nuggets, *coxinas* are believed to have been one of the favorite foods of the royal family back in the 19th century. In recent years, they became the nickname of center-right supporters.

In this paper, I use this ‘food polarization’ as the starting point to ask *when voters polarize.* These derogatory nicknames, *coxinas* and *mortadelas,* are additional evidence of a worldwide phenomenon, which has been recently labelled by Americanists as affective polarization (Iyengar et al. 2018; Iyengar and Krupenkin 2018; Iyengar, Sood, and Lelkes 2012). Following the concept, partisanship becomes a social identity, inducing voters to see the supporters of other parties as out-groups, thus leading to behaviors which have been long studied by social psychologists: stereotyping, in-group favoritism, and out-group negative bias (Tajfel 1970, 1974; Tajfel and Turner 1979). Whereas in the United States and other advanced democracies partisanship is well-established and, in some cases, inter-generational, attachment to political parties is generally weaker in developing countries (Ames, García-Sánchez, and Smith 2012; Ames and Smith 2010; Baker, Ames, and Renno 2006). Here, I focus on responding the proposed question in the most understudied scenario – that of developing democracies.

Using political parties to predict voting choice and electoral stability is common in developed democracies, as highlighted for instance in *The American Voter* (Campbell 1960). However, when
parties possess weak brands and low attachment levels, individuals rely mostly on their social networks to obtain political information (Ames, García-Sánchez, and Smith 2012; Baker, Ames, and Renno 2006). They talk to neighbors, work colleagues, church peers, Facebook friends, etc., creating a cascade phenomenon where political knowledge and preferences are passed individual by individual. In this paper, I propose that since these political talks are intrinsically related to the *persona* of those with whom individuals interact, party and candidate labels become even more linked to their supporters. Ultimately, it leads to cases where affective polarization is more salient than party identification per se. That is, subjects may not identify with any political party but they still hold different attitudes toward their peers who are associated with each party. Here, psychological attachment meets social influences.

In the Brazilian case, *coxinhas* and *mortadelas* represent the two sides of what scholars have called the PT-PSDB duopoly (Kingstone and Power 2017). The center-left PT\(^2\) and the center-right PSDB\(^3\) are the only parties which have reached runoffs in every presidential election between 1994 and 2014. Many Brazilianists argue that the only party with significant popular identification is the PT (e.g., Samuels and Zucco 2014a). Samuels and Zucco (2018) recently proposed that the formation of social identities in Brazilian partisan politics is specific to attitudes toward PT, where *petistas* (i.e., *mortadelas*) fight for political space against anti-*petistas* (in part, *coxinhas*). In this paper, I provide evidence that assessing party affect rather than party identification yields comparable support for PSDB.

Furthermore, the election of 2018 may represent a rupture to this long-standing PT-PSDB duopoly, since the anti-mainstream right-wing candidate Jair Bolsonaro (PSL\(^4\)) managed to reach the

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\(^2\) *Partido dos Trabalhadores* or Workers’ Party.
\(^3\) *Partido da Social Democracia Brasileira* or Brazilian Social Democracy Party.
\(^4\) *Partido Social Liberal* or Social Liberal Party.
runoff and win the presidential election against PT. As an added caveat, Bolsonaro’s supporters also received their own derogatory nickname, *bolsominions*, an allusion to the small yellow henchmen from the animated movie Despicable Me. This new scenario allows studying affective polarization from two perspectives: within the mainstream (i.e., PT versus PSDB), or against the mainstream (i.e., PT-PSDB versus PSL).

This work is divided as follows. First, I briefly review the literature on partisanship as a social identity to indicate its resemblance to the Brazilian ‘food polarization.’ Next, I adapt this literature to the reality of developing countries, where partisanship is not strongly developed. Here, I also provide evidence from the Brazilian case to show that PT is not the only with considerable levels of popular attachment and discuss the emergence of anti-mainstream sentiments. In the following section, I hypothesize that political disillusionment, institutional distrust, and ideological radicalism influence these two types of affective polarization.

In the first part of the empirical tests, I use longitudinal nationally-representative survey data collected from 2002 to 2017 to test these hypotheses in the case of polarization between PT and PSDB. Ideological radicalism is the main predictor of increased levels of affective. Whereas I find support for political disillusionment as a moderator of such polarization in 2002-2016, data for 2017 leads to a different direction. In the second part of the empirical tests, I present the results of a survey experiment conducted in Brazil in the first semester of 2019. It allows two innovations. First, it solves endogeneity problems which may arise from the possibility of reversal causality in the empirical tests conducted with observational data. Second, I add a survey which allows mapping affective polarization against the mainstream. I do not confirm any hypothesis. Still, this design serves as a pre-test for a new experiment, which shall be conducted in the second semester of 2019. Finally, I summarize the findings of this paper and provide some inputs on the next stages of this research agenda.
Affective Polarization

Charalambous et al. (2018, 41) define political polarization as “differing positions by the actors that form opposing camps.” This straightforward concept suggests a bimodal distribution of the population into two extreme poles, rather than a normalized distribution where most individuals are concentrated in the center of the political spectrum. Whereas Fiorina and Abrams (2008) do not disagree, they suggest that polarization, in the United States at least, regards a trend, not exactly a specific time-point, and it should also include distributions where individuals are not in opposing extremes but have rather contrasting middle-range positions on certain issues. Thus, the proper assessment of polarization should regard a comparison of the different levels of group divide across time.

It is not to be confused with “takeoff” issues, that is, when “for very short periods, some issues become the focus of intense attention and consequently appear to radically polarize [citizens]” (Baldassarri and Bearman 2007, 784). Polarization, broadly understood, represents a threat to stable electoral competition exactly because it “organizes individuals and groups around exclusive identities, thus crystallizing interests into opposite factions” (Baldassarri and Gelman 2008, 408).

It is also not the same as political preferences. Take the issue of regional integration for instance. If a voter prefers a Eurosceptic party rather than one that is pro-EU, it does not necessarily mean that she is “polarized” against the pro-EU party. It simply reflects her political preference on the issue of regional integration. Polarization, by contrast, should be understood as the distance between the preferences for two or more political parties. That is, if the same voter feels very attached to the Eurosceptic party and dislikes the pro-EU party, this social distance of political preferences reflects a higher

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5 Depending on the final size of the paper when the new experiment is included, I may eliminate or summarize this section.
degree of political polarization (Druckman and Levendusky 2019; Iyengar et al. 2018; Iyengar, Sood, and Lelkes 2012). Therefore, voting behavior or traditional partisanship may be strong at measuring political preferences but provide a relatively weaker understanding of political polarization.

The psychological perspective of inter-group relations provides relevant insights to the study of polarization (Tajfel 1974). In different terms, polarizing poles (e.g., left versus right) become symbolic identifiers (Vegetti and Širinić 2018) that function as cues for linking citizens to political parties. Iyengar and Krupenkin (2018) affirm that partisanship has become America’s most salient social identity. Recent findings in the comparative literature demonstrate that these political identifiers also perform well in multiparty systems (Nicholson et al. 2018) and generate in-group favoritism in different circumstances, including reactions to corruption scandals in Spain (Solaz, De Vries, and De Geus 2018), economic evaluation in Hong Kong (Parker-Stephen 2013), and overall government performance in Britain (Tilley and Hobolt 2011).

Since Lazarsfeld, Berelson, and Gaudet (1948) and Tingsten (1975), many scholars have dedicated efforts to understand the interactions between polarization and social networks. Their findings suggest that voters avoid political topics when they anticipate disagreements in their own social networks (Gerber et al. 2012), especially if they distrust other individuals (Matthes 2013). These voters, who avoid political conflicts, end up with stronger party attachments (Klar 2014), worse reasoning (Erisen and Erisen 2012), and less information-seeking preferences (Levitan and Wronski 2014). They usually perceive out-groups as more extreme than they are (D. J. Ahler 2014), reject compromise, and start tolerating uncivility against opponents (Wolf, Strachan, and Shea 2012).

Based on these findings, Iyengar and colleagues engaged in mapping political preferences and polarization with regard to social harmony, that is, asking voters not only how they feel about political parties but also how they feel about the supporters of political parties (Iyengar et al. 2018;
I follow their concept of affective polarization (AP) by calculating the absolute difference between an individual’s attitude (i.e., feeling thermometer) toward the supporters of Party 1 \( (P_1) \) and Party 2 \( (P_2) \) (see Equation 1). Since data for attitudes toward partisans is not always available, I also use a similar equation with attitudes toward political parties (rather than their supporters) as a proxy.

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AP = |P_1 - P_2|
\]  

As earlier said, scholars have already identified evidences of polarization outside of the United States. However, as Iyengar et al. (2018) argue, the study of affective polarization is mostly restricted to American politics. Simon et al. (Forthcoming) are responsible for one of the few studies considering a different country case. Employing a panel study with members of the German LGBT+ community, they identify evidence that individual politicization leads to enhanced affective polarization. Still, the authors only consider one political party (the far-right AfD) and conduct their experiment in a national environment where partisanship is significantly high. In the following section, I discuss how affective polarization functions in the context of developing countries.

**Affective Polarization in Developing Countries**

According to Druckman and Levendusky (2019), feeling thermometers toward political parties capture attitudes toward ordinary voters but, more strongly, toward party elites. This finding is especially true in a context where partisanship is strong enough to become a major social identity (Iyengar and Krupenkin 2018). However, the political environment in developing democracies is considerably different, since partisanship is generally lower than in the United States or other developed countries (Baker, Ames, and Renno 2006; Samuels and Zucco 2014c). If that is the case, voters’ attitudes toward the supporters of political parties should not be as polarized as in the United States, therefore diminishing the evidence of affective polarization.
Two other characteristics of developing countries should affect this type of polarization. First, aversion to politics. Even though politicization is positively correlated to affective polarization (Simon et al. Forthcoming), voters may assess partisans negatively if they are averse to politics or individuals who talk about politics (Klar, Krupnikov, and Ryan 2018). If that is the case, feeling thermometers toward partisans of different affiliations should yield low scores, thus leading to low levels of polarization even though average attitudes are generally negative.

Second, whereas in advanced democracies partisanship functions as a heuristic for group identity and political assessment of new information, the low levels of party identification in developing countries lead individuals to obtain political knowledge through their social networks (Ames, García-Sánchez, and Smith 2012; Ames and Smith 2010; Baker, Ames, and Renno 2006). In the Brazilian case, the only party whose elites effectively engaged in strategic differentiation to consolidate their branding was the left-of-the-center PT (Ames and Smith 2010), thus becoming the major player in the country’s partisan spectrum (Amaral and Power 2016; Samuels and Zucco 2018).

This reality reduces the attachment of voters to parties but increases the relevance of socialization to process political information. In the United States, scholars identified a trend of political homogenization of social networks, which leads to political sorting (Mason 2018), reinforcement of previous positions (Hutchens, Hmielowski, and Beam 2019), negative stereotyping of out-groups (D. J. Ahler 2018; Rothschild et al. 2019), and enhancement of hostility against politically dissimilar peers (Lelkes, Sood, and Iyengar 2017). Since social networks play a greater role in the politics of developing democracies, socialization has the potential of generating stronger attitudes toward political in- and out-groups. In this sense, social identities generated through socialization processes rely more on peers than elites and should impact how individuals see each other at least as much as in developed countries even in the absence of high levels of party identification. Going further,
feeling thermometers toward the supporters of political parties should overperform party identification in the measurement of political preferences.

**Partisanship in Brazil**

In the Brazilian case, Samuels and Zucco (2018) affirm that stable partisanship does exist but just for one party: PT. Following their argument, a considerable part of the electorate identifies with PT (the *petistas*), while the opposing pole dislikes it (*antipetistas*). The authors measure this polarization through different methods. First, they utilize the standard party identification measure, that is, asking individuals whether they identify with a specific party.

**Figure 1. Party Identification in Brazilian Politics, 2002-2014**

“Other” includes identification with one of at least 32 parties other than PT and PSDB.

*Source: Calculated by the author with data from CSES.*

In Figure 1, I use data from the Comparative Study of Electoral Systems (CSES) to demonstrate the shares of party identification with PT and PSDB in the aftermath of four presidential elections.

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6 The only other party that reached more than 1% of party identification was the centrist PMDB. In 2002, its share was of 10.5% while PSDB had 6.7% of the population. However, it has declined since then. In 2014, PMDB had a share of 2.8% of the voters.
between 2002 to 2014 – all of them won by PT. Results confirm that PT is the only party with high levels of identification, even though it diminished considerably in 2014. While the share of petistas ranged from 33.4% to 17.4% of the population, PSDB’s ceiling, its main rival, was 9.6% (2014).

LAPOP asked a similar question to a nationally representative sample of Brazilian voters in 2017. Party identification was even lower for both parties: 9.0% for PT and 1.8% for PSDB.

**Figure 2. Party Affect in Brazilian Politics, 2002-2014**

I use the question “How much do you like or dislike ‘Party X’?” (0-10 scale, where 10 means “I like a lot”). Affect for Party 1 is coded when a respondent answers 5 or above for Party 1 and 4 or below for Party 2. “PT and PSDB” means that a subject answered 5 or above for both parties. “Anti-mainstream” are those who answered 4 or below for both parties.

**Source: Calculated by the author using data from CSES.**

In Figure 2, I propose a different coding. Since party identification is low but voters still sort parties based on political information obtained through their social networks, they should hold partisan preferences even though they do not acknowledge identification. Here, I divide voters based on responses to feeling thermometers for PT and PSDB. A similar strategy was adopted by Ribeiro, Carreirão, and Borba (2016). Affect for and identification with PT are very similar. However, numbers for PSDB starkly vary. Now, the share of the population with stronger affect for
PSDB than PT is always above 10% and reach very similar levels as affect for PT in 2014. In that year, while identification for PT represents 17.4% and for PSDB 6.8%, affect for PT is 20.6% and for PSDB 19.5%. Following LAPOP survey data collected in 2017 in the aftermath of Dilma Rousseff’s (PT) impeachment, PT’s share was 17.2% against 9.6% for PSDB (in comparison to 1.8% of identification). These numbers confirm previous findings that right-wing voters (and elites) avoid labeling themselves in the right or in support of right-wing groups (Ames and Smith 2010) – the literature refers to this phenomenon as the direita envergonhada (literally, ashamed right) (Power and Zucco 2009, 2012). Furthermore, the distribution shows that there are more voters in the poles where attitudes are similar to both parties than in the poles whose voters polarize within the mainstream.

Since it is not possible to identify antipetistas following party identification (or pure party affect), Samuels and Zucco (2018) use a survey question which assesses whether subjects dislike any given party, that is, negative partisanship, and whether they like any other. Based on these questions, they create four categories: (1) hard-core partisans, that is, individuals who “both identify with a party and dislike another” (ibid., p. 26), (2) positive-only partisans, who “identify with one party but do not dislike any particular party” (ibid., p. 26-27), (3) negative partisans, who “dislike a party but do not identify with any particular one” (ibid., p. 27), and (4) nonpartisans, who “have neither positive nor negative attitudes” toward specific parties (ibid., p. 27). Following the authors’ argument that partisanship in Brazil is centered around preferences regarding PT, they re-shape each of these categories to reflect voters’ attitudes toward this center-left party. In 2014, they identified 7.14% of “hard-core petistas,” 10.30% “positive-only petistas,” 15.59% “pure antipetistas,” and 5.01% “other partisan antipetistas” (ibid., p. 28). Their measurement allows mapping 38.04% of their sample in 2014.
There are two major problems with Samuels and Zucco’s (2018) measurement. First, they use a combination of two dichotomous variables, that is, subjects either identify with PT or not, and either dislike it or not. Following this model, over 60% of the electorate was not mapped, thus being considered as having no preference. Furthermore, there are a variety of sentiments which are not captured, since voters may hold medium-range attitudes toward PT, as well as toward other parties (as portrayed by the direita envergonhada). The use of feeling thermometers settles this issue, especially if taking into consideration the measurement of affective polarization proposed in Equation 1 (in this case, $P_1$ becomes PT and $P_2$ PSDB). In Figure 3, I show the varying distributions of affective polarization in the aftermath of four presidential elections. In a scale from 0 to 10, averages ranged from 4.0 (2002) to 3.0 (2006). Furthermore, across the years, the largest concentration of individuals was among those who see no difference between PT and PSDB. It may indicate that these voters are completely apolitical or that they consider these two mainstream parties as more of the same.
These histograms follow Equation 1, \( AP = |P_1 - P_2| \), where \( P_1 \) is PT and \( P_2 \) is PSDB. Here, I use a proxy for affective polarization. Given data availability, rather than asking voters how much they like or dislike the supporters of each party, the survey asks how much they like or dislike each party. These feeling thermometers have a scale ranging from 0 to 10.

Source: Calculated by the author using data from CSES.

The second problem regarding Samuels and Zucco’s (2018) approach regards the semantic antipetista. It implies that individuals are against the supporters of PT (petistas), rather than against PT (anti-PT) as indicated by the selected survey question. Asking individuals whether they like or dislike the partisans, rather than the party, should solve this problem if the term is to be kept. The most recent wave of LAPOP includes these questions and allows calculating the levels of affective polarization between PT and PSDB in the aftermath of the petista president’s impeachment in 2017.

A histogram is presented in Figure 4. Rescaling the results to make them comparable to Figure 3 leads to an average polarization of 1.9 – considerably lower than 2014 or any other average level since 2002. Now, the share of respondents who see PT and PSDB supporters in the same way is
45.7%. Beyond, the share of the population that answered 4 or below in a 1-10 scale of party affect for the supporters of both PT and PSDB in 2017 was 51.4%, in comparison to 19.0% in 2014.

**Figure 4. Affective Polarization (PT vs. PSDB) in Brazilian Politics, 2017**

This histogram is also based on Equation 1. It differs from those presented in Figure 3 since feeling thermometers use a 1-10 scale and ask respondents about attitudes toward partisans rather than parties. **Source: Calculated by the author using data from LAPOP.**

These results tell us that *petismo* (i.e., identification with PT) is consolidated as a social identity, in agreement with the Brazilianist literature. Shares of voters who identify with the party are similar to those who have a stronger preference for PT and its supporters than for PSDB. However, the electoral basis of PSDB is not as low as suggested by the literature. Whereas voters do not acknowledge their identification with the party, a significant share of the population has a clear preference for this center-right party when compared to their attitudes toward PT – demonstrating the advantage of party affect as a measurement tool. Furthermore, attitudes toward PT and PSDB (and their supporters) are converging as demonstrated by the low level of affective polarization. This trend is a potential explanation of the emergence of the right-wing anti-mainstream, now president, Jair Bolsonaro. Voters who saw PT and PSDB as more of the same and were dissatisfied with both
of them looked for an alternative that was outside this long-lasting mainstream polarization. In the following sections, I hypothesize the causes of affective polarization in Brazilian politics.

**Ideological Radicalism**

Ames and Smith (2010) find that the Brazilian electorate avoids locating itself in the right of the center when asked about their ideological self-placement. It follows from the lack of elite cues in support of a right-wing brand, the *direita envergonhada*, combined with the effort of PT elites to polarize in the left against center-right opponents, e.g., PSDB. It leads to a left-skewed ideological distribution of Brazilian voters, with larger concentrations in the left and in the center.

It does not mean that there is no political right in Brazil. On the contrary, as Power and Rodrigues-Silveira (2018) argue, it has been present in most of the country’s history. After the recent collapse of PT’s presidency, the authors identify four types of right-wing blocs in the country: a clientelist office-seeking group, the economic right, the religious right, and a combination of “a radical law-and-order discourse with occasional nostalgia for the military regime” (Power and Rodrigues-Silveira 2018, 264). The recent election of the right-wing Jair Bolsonaro (PSL) serves as a proof of concept, since his discourse combined aspects of at least the three last groups (see Hunter and Power 2019). Furthermore, voters tend to reward right-of-the-center parties and politicians in local elections (Power and Rodrigues-Silveira 2019), validating the relevance of the office-seeking right-wing group.

This plural typology shows that mapping the ideological space through a unidimensional spectrum of left *versus* right may be a flawed strategy – right and left mean different things to different individuals, parties, contexts. Previous studies also show the lack of ideological organization of Brazilian legislators in terms of parties and issues (Ames 2002; Rosas 2005). However, the literature shows that while a share of voters did identify themselves in the left, other
emerging groups also saw themselves as right-wingers. The PT-PSDB duopoly reinforces the thesis of a unidimensional divide. In a multiparty system which has almost 30 parties with representation in the lower legislative house, only two parties reached runoffs throughout two decades (Melo 2015). Furthermore, as expected, presidential elections are considerably more salient than other electoral disputes in the country (Speck and Balbachevsky 2016).

There are at least two potential ways in which the electorate may organize itself in this scenario. First, following the Downsean spatial theory (Downs 1957), PT and PSDB should dispute the median voter by approximating themselves from each other. It is the case, for instance, of the German party system, where CDU and SPD are now part of a grand coalition in the center, while minor parties (e.g., Die Linke and AfD) navigate in the extremes (Dostal 2017; Jacoby 2017; Lochocki 2016). There are convincing studies showing the movement of PT from the radical left to the center left (Amaral and Power 2016; Baker et al. 2015; Samuels and Zucco 2014b).

The opposite is true for the United States, where the two parties, rather than disputing the median voter, distanced themselves ideologically in the elite level and the electorate (Johnston 2018; Rogowski and Sutherland 2016; Webster and Abramowitz 2017). Since elites have a lower history of cooperation in Brazil, resembling more the American than the German case, and, following the literature, especially PT made sure to create a clear distance from PSDB (Ames and Smith 2010), the Brazilian case should resemble the American experience. Therefore,

$$H_1: \text{The more ideologically radical a voter is, the more she will be affectively polarized within the mainstream, that is, between PT and PSDB.}$$

The divide between the mainstream (i.e., PT and PSDB) and the anti-mainstream (represented at least in part by Bolsonaro’s PSL) should be less clear. When a voter identifies herself in the ideological center, it does not mean she is actually a centrist. It may also mean that this voter has no political preference or simply does not understand this unidimensional ideological spectrum (Ames
and Smith 2010). Furthermore, voters who simply dislike politics or the mainstream may position themselves differently in this spectrum (Klar, Krupnikov, and Ryan 2018). Therefore, whereas Bolsonaro clearly positioned himself in the right and polarized against the left-leaning PT, he may also have attracted those voters from the center who were equally dissatisfied with PT and PSDB. Thus, I have no specific expectation for the effect of ideology on affective polarization against the mainstream.

**Political Distrust and Institutional Disillusionment**

Legitimacy, “the belief that authorities, institutions, and social arrangements are appropriate, proper, and just” (Tyler 2006, 379), is a well-studied phenomenon in social psychology. It follows that when individuals are in agreement with the norms and believe in those making decisions, they accept their outcomes, legitimating the process (ibid). Weatherford (1992, 150) discusses what he calls “procedural fairness,” that is, the belief that “the system [is] structured to ensure that issues are resolved in a regular, predictable way and that access to decisional arenas is open and equal.” Similar approaches study the relevance of system support (or legitimation) among the losers of electoral processes (Esaiasson 2011; Nadeau and Blais 1993).

Once individuals believe that the government has failed to deliver promises or to solve salient issues, public trust toward the government as an institution shrinks. This assumption should be valid especially if different ruling parties are perceived as unsuccessful to respond to the popular will. It partially explains Euroscepticism (Abts, Heerwegh, and Swyngedouw 2009; Verney 2015), low voting turnout in the U.S. (Cappella and Jamieson 1997), and, in the Brazilian case, lower identification with the governing party (Winters and Weitz-Shapiro 2014) or support for elected officials (Weitz-Shapiro and Winters 2016). A similar logic applies to political disillusionment. Kitchelt and McGann (1997) use the cases of Austria and Italy to argue that voters look for anti-
mainstream alternatives when they are disenchanted with the existing elites. Likewise, in the 1989 Brazilian and the 1990 Peruvian elections, outsiders ran under the platform that the existing political actors were not responsive to the population (Schedler 1996).

Here, there are two potential inputs that may influence two different types of affective polarization. First, political disillusionment and institutional distrust are two similar but still different phenomena. The first regards the feeling that politicians do not represent the people, for instance, because they are corrupt or uninterested in popular demands (i.e., external efficacy). The second is systemic. In the case of institutional distrust, a sequence of unfortunate results even under power alternance leads voters to distrust the system, since politicians from different parties or political groups failed to produce desirable results. I argue that if voters rely on the system and believe politicians represent themselves well, they will legitimize the PT-PSDB duopoly, therefore polarizing within the mainstream. If voters are politically disillusioned or distrust institutions, they will not only have lower levels of within-mainstream affective polarization, but they will also polarize against the mainstream. It leads to the following hypotheses:

$$H_{2.1}:$$ The more a voter is politically disillusioned, the less she will be affectively polarized within the mainstream, that is, between PT and PSDB.

$$H_{2.2}:$$ The more a voter is politically disillusioned, the more she will be affectively polarized against the mainstream, that is, between PT-PSDB and PSL.

$$H_{3.1}:$$ The more a voter distrusts institutions, the less she will be affectively polarized within the mainstream, that is, between PT and PSDB.

$$H_{3.2}:$$ The more a voter distrusts institutions, the more she will be affectively polarized against the mainstream, that is, between PT-PSDB and PSL.

There are two caveats to be considered. First, these hypotheses may suffer from endogeneity. In other words, political disillusionment and institutional distrust may be both causes and consequences of political polarization. While a voter may polarize within the mainstream because she trusts the
institutions, she may also (or alternatively) trust the institutions because she is highly affectively polarized between PT and PSDB. Second, existing survey data is insufficient to study polarization against the mainstream because, at least until this paper was written, data sources as the Comparative Study of Electoral Systems (CSES) and the Latin American Public Opinion Project (LAPOP) had no specific question for party affect with the anti-mainstream PSL. These issues lead to the need of a multi-method approach. In the following section, I use observational data from CSES and LAPOP to test $H_1$, $H_{2.1}$, and $H_{3.1}$. In the subsequent section, I present primary data and results from a survey experiment fielded in Brazil in the first semester of 2019 considering $H_{2.1}$, $H_{2.2}$, $H_{3.1}$, and $H_{3.2}$.

**Survey Evidence**

The Comparative Study of Electoral Systems (CSES) interviews nationally representative samples of voters in several democracies in the aftermath of national elections. In the Brazilian case, data is available for the presidential elections of 2002, 2006, 2010, 2014. Besides asking about a series on sociodemographic questions, they inquiry about party identification, party affect, and attitudes toward the political class. It allows testing $H_1$ and $H_{2.1}$, that is, the effects of ideological radicalism and political disillusionment on affective polarization within the mainstream.

I code the dependent variable following Equation 1, that is, the absolute difference between each individual’s party affect for PT and PSDB. Since each feeling thermometer ranges from 0 to 10, the final scale of affective polarization also follows the same scale. To test $H_1$, I use voters’ self-placement in the left-right scale (0-10, where 0 means left and 10 right). I fold this scale, so that extreme values mean a higher degree of radicalism. Then, I recode it to follow a 0-1 scale. For instance, subjects who answered either 10 or 0 are now coded as 1 (highest ideological radicalism), while respondents who answered 5 are now 0 (lowest ideological radicalism). Following $H_1$, the coefficient of this independent variable should be positive and significant.
I test H₂,₁ based on a survey question that asks subjects whether they believe that voting makes any difference⁷. It is also recoded to a 0-1 scale, where 1 means high external efficacy and 0 the opposite. Support for H₂,₁ is found if the coefficient is positive and significant, meaning that the higher the external efficacy, the higher affective polarization within the mainstream should be. In Table 1, I present the results of a multilevel mixed-effects regression with fixed-effects and clustered standard errors for each survey-year. This model performs better than ordinary least squares (OLS) regressions in cases when a second level of data (e.g., country-cases, survey-years) is added (Steenbergen and Jones 2002). I also include control variables for sociodemographic characteristics which are standard in the literature. Finally, I add the results of a model that only considers the control variables to test the relevance of adding the two dependent variables of interest.

### Table 1. Explaining Affective Polarization in Brazilian Politics, 2002-2014

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideological Radicalism</td>
<td>1.89***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(7.62)</td>
<td></td>
</tr>
<tr>
<td>External Efficacy</td>
<td>0.70***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.80)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.55</td>
<td>0.55</td>
</tr>
<tr>
<td></td>
<td>(0.96)</td>
<td>(1.11)</td>
</tr>
<tr>
<td>Male</td>
<td>0.11*</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>(1.79)</td>
<td>(1.23)</td>
</tr>
<tr>
<td>Education</td>
<td>0.01</td>
<td>-0.16</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
<td>(-1.05)</td>
</tr>
<tr>
<td>Protestant</td>
<td>-0.28</td>
<td>-0.25</td>
</tr>
<tr>
<td></td>
<td>(-1.16)</td>
<td>(-1.01)</td>
</tr>
<tr>
<td>Income</td>
<td>0.41*</td>
<td>0.32*</td>
</tr>
<tr>
<td></td>
<td>(2.41)</td>
<td>(1.68)</td>
</tr>
<tr>
<td>Left vs Right</td>
<td>-0.16</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td>(-0.77)</td>
<td>(0.66)</td>
</tr>
</tbody>
</table>

⁷ This survey question may be interpreted as measuring political disillusionment and institutional distrust. Voters may think that their votes matter because they trust institutions or because they think politicians are doing a good job.
$t$ statistics in parentheses. Multivariate mixed-effects regression with fixed-effects and clustered standard errors for years (i.e. 2002, 2006, 2010, and 2014). The dependent variable is the absolute social distance between individual's preferences for PT and PSDB. * $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: Calculated by the author using data from CSES.

First, adding the two dependent variables of interest makes both the log likelihood and Akaike’s information criteria closer to zero, therefore confirming the relevance of these variables to improve the predictability of the model. Second, both variables of interest follow the hypothesized expectations, being positive and statistically significant at the 0.001 level. Furthermore, the control variable for self-placement in the left-right spectrum yields no statistical significance. It reinforces the thesis that polarization within the mainstream is not led by leftism or rightism but radicalism.

For the purpose of analyzing substantive effects, I present in Figure 5 the marginal effects of each of these variables when controlling for all the other variations. An average centrist voter has a significantly lower level of affective polarization (2.9) if compared to an average voter who self-identifies in the radical left or right (4.8). It is an average variation of 1.9 in a 0-10 scale, therefore supporting $H_1$, $H_{21}$, that is, the positive effective of external efficacy on affective polarization between PT and PSDB, is also supported but at a lower substantive degree. Moving from the lowest level of perceived external efficacy to the highest level causes an average change from 3.4 to 4.1, that is, a variation of 0.7.
In the aftermath of the impeachment of *petista* president Dilma Rousseff, LAPOP interviewed a nationally representative sample of Brazilian voters. Rather than asking about party affect, they inquired about how much voters like or dislike the *supporters* of each party – the same as Iyengar and colleagues when studying affective polarization in the United States (e.g., Iyengar et al. 2018). The dependent variable is coded in the same way as before, also following Equation 1. However, since the scale of responses now ranges from 1 to 10, affective polarization now follows a 0-9 scale – virtually the same as before.

As for the independent variables, ideological radicalism is coded exactly the same way as in the previous regression and should yield a positive and significant coefficient to provide support for $H_1$. The wider range of survey questions allow mapping political disillusionment and institutional distrust through different ways. I test the hypothesis for political disillusionment ($H_{2.1}$) based on two survey questions: first, respondents were asked whether they believe that courts (i.e., the justice system) are fair; second, they were asked whether they trust elections. Both variables were re-coded...
to a 0-1 range, where 0 represents strong institutional distrust. The second variable is especially relevant, since Jair Bolsonaro’s discourse repeatedly included critiques to voting procedures in Brazil. Support for $H_{2.1}$ will be found if coefficients are positive and statistically significant. I test $H_{3.1}$ with two additional survey questions (both also recoded to the 0-1 scale). First, voters are asked about the share of politicians they believe to be corrupt, ranging from none of them (0) to all of them (1). Support for $H_{3.1}$ is found if the coefficient is negative and significant. Second, they were asked whether they believe that politicians are interested in what they think. Now, support for the hypothesis is found if the coefficient is positive and significant. I present the results in Table 2. Since there is just one wave (2017), I use an OLS model. I also present two regressions, where the second only considers control variables.

Table 2. Explaining Affective Polarization in Brazilian Politics, 2002-2014

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideological Radicalism</td>
<td>0.85***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.36)</td>
<td></td>
</tr>
<tr>
<td>Courts are Fair</td>
<td>-0.20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.72)</td>
<td></td>
</tr>
<tr>
<td>Trust Elections</td>
<td>0.50*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.89)</td>
<td></td>
</tr>
<tr>
<td>Politicians are Corrupt</td>
<td>0.64*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.05)</td>
<td></td>
</tr>
<tr>
<td>Leaders are Interested</td>
<td>-0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.14)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1.42**</td>
<td>1.71***</td>
</tr>
<tr>
<td></td>
<td>(2.97)</td>
<td>(3.65)</td>
</tr>
<tr>
<td>Male</td>
<td>0.05</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>(0.36)</td>
<td>(0.22)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.46</td>
<td>-0.64*</td>
</tr>
<tr>
<td></td>
<td>(-1.26)</td>
<td>(-1.76)</td>
</tr>
<tr>
<td>Evangelical</td>
<td>-0.25</td>
<td>-0.28*</td>
</tr>
<tr>
<td></td>
<td>(-1.63)</td>
<td>(-1.87)</td>
</tr>
</tbody>
</table>
Income  -0.32  -0.40  
       (-1.25)  (-1.55)  
Urban  -0.44*  -0.44*  
       (-2.09)  (-2.09)  
Left vs Right  -0.42*  -0.53*  
          (-1.65)  (-2.11)  
Constant  1.23**  2.28***  
         (2.59)  (6.54)  

Observations  1245  1257  
R²  0.05  0.03  
Adjusted R²  0.04  0.02  

*t statistics in parentheses. OLS regressions with robust standard errors. The dependent variable is the absolute social distance between individual's preferences for the supporters of PT and PSDB. *p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001.

Source: Calculated by the author using data from LAPOP.

As it happened in the previous period (2002-2014), I support the hypothesis that ideological radicalism increased affective polarization within the mainstream in 2017 (H₁). However, the substantive effect, demonstrated in Figure 6, is lower than before: moving from extremes increases polarization in 0.8. The variables assessing the effects of whether leaders are interested in what people think (H₂.) and whether courts are fair (H₃.₁) fail to reach statistical significance, therefore resulting in no support for the hypotheses. However, the alternative variables are statistically significant at least at the level of 0.10. First, the positive coefficient of trust in elections confirms the hypothesis that institutional legitimation increases affective polarization (H₃.₁) – at least with a minimal marginal effect of 0.5. The survey question asking whether voters believe that many politicians are corrupt contradicts H₂.₁. The belief that many politicians are corrupt actually increases affective polarization within the mainstream with a marginal effect between extremes of 0.6. Whereas this variation is, again, minimal, it may indicate that the perception that politicians are corrupt makes voter pick a side in the mainstream, therefore blaming for corruption the opposite
party and protecting her own political group – a similar finding to the one recently identified in the Spanish context (Solaz, De Vries, and De Geus 2018).

**Figure 6. Marginal Effects of Ideological Radicalism, Institutional Distrust, and Political Disillusionment on Affective Polarization, 2017**

Source: Calculated by the author using data from LAPOP.

**Experimental Evidence (pre-test)**

As earlier mentioned, these analyses have several limitations. First, my measurement of polarization is only valid for affective polarization within the mainstream. Because these surveys contain no questions related to affect with non- or anti-mainstream parties or partisans, it is not possible to create an index of affective polarization against the mainstream. Second, these regressions may suffer from endogeneity due to reversal causality. Third, because these questions were created for the purpose of cross-national comparison, they are too broad. For instance, electoral distrust may represent different things for each subject (e.g., potential frauds, abuse of economic power). In this section, I present a survey experiment fielded in Brazil in the first semester of 2019 to settle these issues.

---

8 This survey experiment is a pre-test. I intend to run a new experiment in the second semester of 2019 with a larger national sample of Brazilian voters to confirm the results. I am currently working on stronger frames. Whereas the version of the new experiment to be included in this paper only considers the treatment effects presented below, I am also working on additional hypotheses (related, for instance, to the composition of social networks and other psychological aspects) to be presented in a second paper.
Data collection is based on the Random-Digit-Dialing (RDD) method with a probability convenience sample of 190 Brazilian voters. According to official data, 78.3% of the Brazilian population had a mobile phone for personal use in 2015 (IBGE 2015). While the country is inhabited by roughly 210 million people, Brazil had 220 million active smartphones in 2018 (Lima 2018). Even though the data collection was not intended to result in a nationally representative sample, it should still be able to capture a wide range of relevant demographic groups.

As a first step in what shall be a larger research agenda, I limited this study to a sample of residents of the metropolitan region of São Paulo (Brazil’s most populous area). It represents an ideal location given its recent political history: the city has been administered by PT in 2013-2016 and has a mayor from PSDB since 2017. However, in the second round of the 2018 federal and state elections, 60.38% of the city voted for a right-wing anti-mainstream presidential candidate (against PT) and 58.10% for a left-wing non-mainstream candidate for governor (against PSDB). Therefore, subjects should be highly familiar with both mainstream parties, as well as with anti-mainstream discourses and political conversation.

Cell phone numbers follow a different protocol than landline numbers. In the region, mobile phones are provided as follows: (11) 9-XXXX-XXXX, where X ranges from 0 to 9. Since national or sub-national registers are not available, the RDD method consisted of randomly generating 60,000 of XXXX-XXXX through Stata and calling one by one. Response rates were considerably low, since a share of these numbers was inactive or not answered. Previous studies in different countries encountered the same problems (see Couper 2017). It is the reason why 60,000 numbers, not a number closer to 190, are generated. The interviewers call each phone number in the list until completing 190 interviews. Non-active numbers are excluded from the sample. Because evidence suggests that multiple calls do not affect responses (Peytchev, Baxter, and Carley-Baxter 2009),
active numbers that are not answered are called up to five times in different days before being excluded from the sample.

Non-response bias could represent a threat to nationally (or regionally) representative surveys. However, previous studies show that the response rate is not necessarily associated with data quality (Keeter et al. 2006). Furthermore, probability telephone surveys usually yield better results than widely used non-probability Internet surveys, that is, samples that count on pre-registered subjects (e.g., Amazon’s Mechanical Turk) (Yeager et al. 2011). Finally, this survey experiment does not aim to be nationally representative. Since the objective is purely to verify the causal chain’s direction, the random distribution of subjects across groups should suffice.

**Dependent Variables**

Following the concept of affective polarization, I ask subjects how they feel about the supporters of selected political groups. One of the core problems identified before was the lack of questions regarding anti-mainstream groups to allow building a proper index of polarization that followed the same standard used to measure polarization within the mainstream. Therefore, besides asking about affect toward PT supporters (PTer) and PSDB supporters (PSDBer), I use the same standard question to ask how subjects feel about the supporters of PSL, that is, Jair Bolsonaro’s party (PSLer). Whereas anti-mainstream sentiments may be expressed through different manners, support for Bolsonaro should be able to represent part of this group. Questions are presented in a randomized order and subjects provide their opinions based on a 0-10 scale, where 0 means ‘I dislike them a lot’ and 10 means ‘I like them a lot.’ These questions allow mapping the already

---

9 Whereas PSL ran in the presidential elections of 2018 as an anti-mainstream party, it may soon be considered as part of the mainstream given its electoral success. It should be taken into consideration when conducting the new experiment in the second semester of 2019.
discussed within-mainstream affective polarization (\(wmAP\)) and affective polarization against the mainstream (\(bolsoAP\)). I propose the following dependent variables:

\[
wmAP = |P\text{er} - PS\text{Ber}|
\]

\[
bolsoAP = \left| \left( \frac{P\text{er} + PS\text{Ber}}{2} \right) - P\text{Ler} \right|
\]

**Treatments**

Subjects are divided across five different groups: Control, Weak Institutional Distrust Treatment (WID), Strong Institutional Distrust Treatment (SID), Weak Political Disillusionment Treatment (WPD) and Strong Political Disillusionment Treatment (SPD). Human interviewers are benefited by a computer-assisted telephone interviewing (CATI) technique (see Gaines, Kuklinski, and Quirk 2007; Groves and Mathiowetz 1984). In brief, the questionnaire is coded in Qualtrics. The interviewer reads out loud each question that appears at her online interface and answers it according to the subject’s response. Because Qualtrics randomizes each questionnaire, subjects are automatically distributed across the five groups of interest. Subjects placed in the control group receive the following baseline paragraph:

**Control:** In 2019, the political parties with the greater representativeness in the Brazilian Senate are MDB, PSDB, PSD, PT, and DEM. Between 1994 and 2014, all the presidents were either from PT or PSDB.

Subjects in the treatment groups hear this baseline paragraph, plus a treatment paragraph as follows:

**WID:** However, many people distrust elections in Brazil. They say that there is vote buying, abuse of economic power, and even problems with the electronic voting machines.

**SID:** However, many people distrust elections in Brazil. In 2014, several parties asked for auditing in the electoral process because they distrusted the results. Recently, a new law was approved to allow recounting the votes. One of the supporters of this project, the National Association of Federal Expert Witnesses said that the Supreme Electoral Court found
several failures in the tests conducted between 2009 and 2017. However, the Supreme Court did not allow that printed voting receipts could be used in 2018.

**WPD:** However, many people distrust politicians in Brazil. They say that they are corrupt, think only about power, and are not interested in what the population wants.

**SPD:** However, many people distrust politicians in Brazil. Recently, the former president Lula, from PT, was arrested for corruption and money laundering. The former president of PSDB, Aécio Neves, was accused of asking 2 million reais to the owners of a big company. And the former president Michel Temer, from MDB, was denounced for engaging in passive corruption, belonging to a criminal organization, and obstructing the course of justice.

**Descriptive Statistics**

The 190 subjects were randomized across groups, as earlier mentioned, resulting in five groups of 38 subjects each. **Error! Not a valid bookmark self-reference.** shows that, on average, subjects dislike the supporters of PT (mean of 3.09 on a 0-10 scale) more than any other group. The most positive group is composed of supporters of PSL, that is, Bolsonaro’s party (5.52). It leads to an average level of affective polarization against the mainstream higher than that between PT and PSDB.

**Table 3. Summary of subject's post-treatment affective partisanship (left) and polarization (right)**

<table>
<thead>
<tr>
<th>Party Affect</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTer</td>
<td>3.09</td>
<td>0.24</td>
<td>0-10</td>
</tr>
<tr>
<td>PSDBer</td>
<td>3.41</td>
<td>0.19</td>
<td>0-10</td>
</tr>
<tr>
<td>PSLer</td>
<td>5.52</td>
<td>0.24</td>
<td>0-10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Affective Polarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>wm/AP</td>
</tr>
<tr>
<td>2.36</td>
</tr>
<tr>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Range</td>
</tr>
<tr>
<td>bolso/AP</td>
</tr>
<tr>
<td>3.70</td>
</tr>
<tr>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Range</td>
</tr>
</tbody>
</table>

**Source:** Calculated by the author with primary data.
To verify the quality of the randomization process, I ran a two-tailed t-test of each variable by a dichotomous variable representing the assigned group (0 for control, 1 for treatment). I considered a dichotomous variable for gender, protestant, voting for Bolsonaro, and voting for Haddad. I also considered as continuous variables level of social network heterogeneity (excluding responses that did not know or did not vote), age, level of education, and social class. There were only three variables which did not reach a balanced distribution across groups: the composition of social networks, voting for Jair Bolsonaro (PSL), and voting for Haddad (PT). These variables shall be used as covariates in the relevant regressions.

Table 4. Balance table

<table>
<thead>
<tr>
<th>Range</th>
<th>Control</th>
<th>WID</th>
<th>SID</th>
<th>WPD</th>
<th>SPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18-90</td>
<td>41.3</td>
<td>39.5</td>
<td>36.6</td>
<td>41.7</td>
</tr>
<tr>
<td>Education</td>
<td>0-7</td>
<td>3.05</td>
<td>2.45</td>
<td>2.50</td>
<td>2.58</td>
</tr>
<tr>
<td>Social class</td>
<td>1-5</td>
<td>2.60</td>
<td>2.39</td>
<td>2.58</td>
<td>2.55</td>
</tr>
<tr>
<td>Male</td>
<td>0-1</td>
<td>0.58</td>
<td>0.68</td>
<td>0.45</td>
<td>0.60</td>
</tr>
<tr>
<td>Protestant</td>
<td>0-1</td>
<td>0.24</td>
<td>0.29</td>
<td>0.29</td>
<td>0.26</td>
</tr>
<tr>
<td>Social network</td>
<td>0-4</td>
<td>2.48</td>
<td>2.97*</td>
<td>2.73</td>
<td>2.45</td>
</tr>
<tr>
<td>Voted for Bolsonaro</td>
<td>0-1</td>
<td>0.45</td>
<td>0.68*</td>
<td>0.31</td>
<td>0.47</td>
</tr>
<tr>
<td>Voted for Haddad</td>
<td>0-1</td>
<td>0.24</td>
<td>0.08^</td>
<td>0.10</td>
<td>0.13</td>
</tr>
</tbody>
</table>

All values are non-negative integers.
* p-value < 0.05; ^ p < 0.10 in the two-way t-test in comparison to the control group. The identified variables are not balanced across groups; therefore, they will be used as covariates in the regression which compare the specific treatment group and the control group.

Source: Calculated by the author with primary data.

Regarding social network composition, 4.7% said none of their peers voted for the same as themselves, 14.02% voted together with the minority of their peers, 14.63% had mixed social networks, 53.05% voted for the same candidate as most of their social networks, and 14.03% had a

---

10 For instance, if testing the randomization of ages (variable name “age”) across the control group and the Weak Institutional Distrust treatment group (“wid”), the command at Stata is: ttest age, by(wid). The variable is considered to be balanced across groups if the p-level of the difference is above 0.05.

11 Subjects were asked the share of their close friends and family who voted for the same candidate as themselves in the second round of the last presidential election. Those whose everyone or almost everyone in the social network voted for the same candidate are considered to belong to a politically homogeneous social network.
purely homogeneous social network. Stated voting choice is slightly skewed in favor of Bolsonaro (47.37%). Others voted for Haddad (12.64%), Ciro Gomes (4.21%), Geraldo Alckmin (4.21%), João Amoêdo (8.42%), Marina Silva (1.05%), Álvaro Dias (0.53%), and Cabo Daciolo (0.52%). Those who did not vote, did not want to say who they voted for, or did not remember sum 21.05% of the sample.

Results

I present the coefficient of the independent variable of interest of all the eight regressions in Figure 7. Following the standard model presented in Equation 4, vertical bars represent $\beta_i$, that is, the treatment effect on the dependent variable. In every case, $x_i$ is a dichotomous variable that divides control group (0) and treatment group (1). I divide them into four graphs, each of them representing a different treatment effect. The vertical bars per graph represent results for each of the regressions, one consisting of affective polarization within the mainstream ($wm.AP$) and the other against the mainstream ($bolso.AP$). Their levels of significance are 0.10 and 0.05.

\[
Polarization = \beta_0 + \beta_1 x_i + \mu + \epsilon \tag{4}\]
Only the treatment effect of WID on wmAP is significant at conventional levels and it does not support H$_{3.1}$, since framing conversation on electoral distrust increased affective polarization between PT and PSDB. At this point, I present the direction of the other results with no consideration for significance levels. First, since every treatment effect on wmAP is positive, the tests find no support H$_{2.1}$ and H$_{3.1}$. Second, the treatment effects of WPD and SPD on bolsoAP are negative, thus H$_{2.2}$ is also not supported. However, if significance levels are ignored once again, results support H$_{3.2}$, that is, framing political disillusionment (i.e., corruption scandals) increased affective polarization against the mainstream. Results are summarized in Table 5.

**Table 5. Summary of experimental expectations and results**

<table>
<thead>
<tr>
<th></th>
<th>wmAP</th>
<th>bolsoAP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expected</td>
<td>Result</td>
</tr>
<tr>
<td>WID</td>
<td>-</td>
<td>+*</td>
</tr>
<tr>
<td>SJD</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>WPD</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>$\text{SPD}$</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>------------------</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

* p-value < 0.10. (−) represents a negative coefficient; (+) represents a positive coefficient. The hypothesized expectation is that all of these eight coefficients would be statistically significant.

**Source:** elaborated by the author.

**Discussion**

This paper follows the premise that affective polarization is presented in developing countries, where party identification is generally lower than in advanced democracies. The mechanism, however, is different. Instead of being led by elite cues and party identification, polarization is driven by socialization processes, where individuals develop affect for parties and their supporters based on stereotypes they form and information they obtain in their social networks. In this sense, party affect should function as a better measurement instrument than party identification to assess individual political preferences.

This premise is confirmed based on the Brazilian case, where party identification yields attachment to only one political party (i.e., the center-left PT), but party affect also demonstrate comparable levels of proximity with the center-right PSDB. Furthermore, throughout the years, individual-level affect for both PT and PSDB have become more similar. I refer to this process as a potential cause of the formation of an anti-mainstream affect, since voters see PT and PSDB as more of the same and, when dissatisfied with the country’s politics, look for an alternative – therefore justifying the presidential election of the anti-mainstream Jair Bolsonaro. Following the derogatory nicknames explained throughout the text, the ‘food polarization’ between *coxinhas* and *mortadelas* diminished and suffered a rupture with the emergence of *bolsominions*.

Next, I engage in a multi-method approach to explain these two types of affective polarization, that is, within and against the mainstream. Observational data from nationally representative surveys conducted between 2002 and 2017 show that ideological radicalism are the main sources of
polarization between *coxinhas* and *mortadelas*. This explanation differs from the assumption of centrism, approximating the Brazilian case to that of the United States.

Between 2002 and 2014, I also find support for the hypothesis that sees political disillusionment as a moderator of polarization within the mainstream – the higher is a voter’s perception of external efficacy, the more she will be prone to hold affectively polarized views between PT and PSDB. However, the same result is not found in 2017, when perception of corruption is used as the proxy for political disillusionment. In that year, the more voters believe that politicians are corrupt, the more they polarize within the mainstream. It may represent a different scenario or be caused by the different survey question. For instance, voters may believe they are talking about politicians from the other party, instead of their own politicians.

In 2017, voters were asked about their trust in the elections. Higher institutional legitimation led to higher levels of polarization within the mainstream, as hypothesized in this work. Nonetheless, experimental evidence follows the opposite direction. When conversations about electoral distrust were framed, voters became more polarized between PT and PSDB. Actually, it was the only experimental result which obtained statistical significance at conventional levels, indicating that either the design or the hypotheses should be reviewed.

At this point, I opt for reviewing the design. I will conduct a new experiment with a larger sample online. It should allow providing stronger treatments (e.g., using images) and greater statistical power in the results. In the following version of the experiment, it is possible to focus on a smaller number of frames that combine facts and popular beliefs, as well as focusing on heated political conversations (e.g., using the derogatory terms *coxinhas*, *mortadelas*, and *bolsominions*) and means of conversation (e.g., neighborhood, online social media). Furthermore, moving on the same research agenda, it should be interesting to discuss in another paper how different groups react to these
frames (e.g., composition of social network, education). These heterogeneous treatment effects should provide a deeper explanation to the formation of party affect in environments of low party identification.

\[^{12}\text{In a previous version of this draft, I test the heterogeneous treatment effects of the different compositions of individuals' social networks. Whereas results are interesting, they do not achieve statistical significant at conventional levels.}\]
References


