

## Subjective Political Polarization

Hyunku Kwon, John Levi Martin

University of Chicago

**Abstract:** Although the political polarization literature has provided important insights in understanding the structure of political attitudes in the United States at the aggregate level, and how this has changed in recent years, few attempts have been made to examine how each individual subjectively perceives political space and how she locates herself vis-à-vis her political in/out groups at the individual level. To examine such subjective polarization, this paper proposes an approach that examines the trifold relationship between a political actor and the two major political parties. Such relational properties are studied by looking at how each individual locates herself in relation to political in/out groups. Using the American National Election Studies Dataset, this paper sheds new light on the patterns and trends of mass polarization in the United States and demonstrates that subjective polarization has a distinct contribution to partisan animus, or “affective polarization.”

**Keywords:** political polarization, public opinion, culture and cognition

As a result of careful and close attention, social scientists have moved beyond the rather vague notion of “culture wars” towards research programs that distinguish and specify various levels and dimensions of polarization in the United States (DiMaggio, Evans, and Bryson 1996; Baldassarri and Gelman 2008; DellaPosta 2020). Acknowledging the multifaceted nature of political polarization in the United States (Park 2018), many scholars now ask not whether American politics is polarized or not; rather, they ask specifically in what ways, on which dimensions, and on which levels American politics has become more polarized (see Lelkes 2016). Three aspects of polarization have been the focus of recent scholarship: elite polarization, mass opinion structure, and partisan dislike (“affective polarization,” which we here term *partisan animus* to avoid confusion with our main polarization measures).

First, at the elite level, political actors (e.g., politicians, activists, and pundits) have developed coherent and all-encompassing political ideologies, which bifurcated previously pluralistically structured political elites into two opposing factions (Aldrich 1995; Layman, Carsey, and Horowitz 2006; Noel 2013). Second, at the mass level, Americans have become better “sorted” in their political attitudes in the sense that political attitudes have become increasingly organized around their partisan and ideological identities (Baldassarri and Gelman 2008; Levendusky 2009; Bonikowski, Feinstein, and Bock 2021). Third, Americans increasingly distrust and dislike those who are perceived to be associated with the opposing party (Iyengar, Sood, and Lelkes 2012; Iyengar et al. 2019; Mason 2015).

It would seem logical that implicated in such increasing polarization would be changes in how everyday citizens understand the nature of the partisan space and their own position within it. Indeed, as sociologists explicate the changes that have led to these patterns in aggregate data, they often implicitly refer to

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
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changes in how citizens perceive the locations of the two major political parties and how they position themselves vis-à-vis the parties. For example, we know that political elites have become increasingly polarized along the partisan lines and started sending more consistent, clear, and hostile partisan cues. Perceiving the growing distance between the two political parties, Americans have increasingly adopted packages or bundles of political attitudes and social identities (Baldassarri and Gelman 2008; Abramowitz and Saunders 2008; Kozlowski and Murphy 2021). This suggests that mass polarization has involved many citizens coming to possess a clearer understanding of where the parties stand on different issues (stances that have themselves increasingly diverged), as well as a stronger identification with one party as against the other (Mason 2015, 2016; Webster and Abramowitz 2017; Bougher 2017; Iyengar et al. 2019).

Various aspects of citizens' own subjective representations of what we can call the "partisan space" have been studied, yet separately. Ahler (2014), Ahler and Sood (2018), Enders and Armaly (2019), and Lee (2022) demonstrated that Americans vary in how they perceive the positions of political parties,<sup>1</sup> and that such perceptions are associated with political behavior. Further, political analysts have long asked respondents how close they feel to different parties, but the pieces have not been put together in the same space. We propose that doing so will allow us to measure subjective polarization via respondents' representations of the positions and reciprocal distances of political actors to themselves. Rather than examining the extent to which individuals might be *extreme* on political attitudes (e.g., Fiorina, Abrams, and Pope 2008), or whether degrees of extremity of different political attitudes are correlated (e.g., Baldassarri and Gelman 2008), we examine the three-way relationship between a political actor and the two major political parties. This approach thus looks not only at respondents' beliefs regarding the relationship *between* the two political parties but also at how they position themselves in relation to these two political parties in their subjective representations of political space.

This means that the relevance of any individual's own opinions for issues of subjective polarization depends on that individual's overall conception of the political space. For example, imagine two hypothetical respondents, both of whose positions on an issue are 2 (on a 7-point Likert scale). But imagine that the first places the Republican party at 7 and the Democratic party at 2 on this scale, whereas the other thinks that both parties are at 7. In this case, although in one way, the two respondents do agree on this issue, in another, they are entirely at odds: The former believes that she is in agreement with the Democratic party and in opposition to the Republican party, whereas the latter believes herself to sit outside of the spectrum covered by the two major parties.<sup>2</sup>

This hypothetical case indicates that comparing political positions of multiple individuals would be problematic if people vary in their perceptions of the political parties. Political scientists (especially Hare et al. 2015) have used such data to treat individual observations as *distortions* (for example, extremists tend to see themselves as more centrist than they are), and to recover citizens' positions in a *common* space. Here we do the opposite: By operationalizing how individuals position *themselves* in relation to political in/out groups in their own subjective representation, this paper proposes an approach that enables us to formalize political polarization without

recourse to the assumptions of homogeneity of political space among individuals. Even though individuals have their own perceptions of partisan space, we can still measure and compare how subjectively distant they are from the political in/out groups. If the logic here is correct, such a measure of polarization should do better at predicting partisan animus (affective polarization) than either respondents' views of the parties or their attitudes alone.

This paper proceeds as follows. First, we discuss current approaches to polarization: those that examine aggregate distributions and treat polarization as bimodality, and then those that examine the systemization of beliefs and their relation to partisan affiliation. We then go on to propose a new approach, which looks at how each individual locates her political attitudes in relation to those of political in- and out-groups. After deriving key formal properties of subjective polarization, we propose a mathematical operationalization of subjective polarization. We then go on to use the American National Election Studies Dataset (1972–2016) to explore whether, and, if so, how Americans have become more polarized in their subjective representations. Then we use this measure of subjective political polarization to predict partisan animus.

## Debates on Mass Polarization in the United States

### Polarization as Bimodal Distribution

In recent decades, American political parties have become increasingly polarized as they have developed coherent packages of political ideology (Aldrich 1995; Layman et al. 2006; Noel 2013). Accordingly, political elites provide clearer and more consistent partisan cues to the mass public (Hetherington 2001; Bafumi and Shapiro 2009). Because mass publics rely heavily on elite cues to form opinions (Shapiro and Page 1992; Zaller 1992), mass polarization was expected to follow suit.

However, notwithstanding the clear signs of growing elite polarization (Aldrich 1995; McCarty, Poole, and Rosenthal 1997; Layman et al. 2006), it is not clear if such polarization has extended to the mass public (Fiorina et al. 2008; Baldassarri and Gelman 2008; Levendusky 2009; Park 2018). On the one hand, some scholars have found evidence that elite polarization changes the mass public's political reasoning. In particular, elite polarization enhances partisan bias and motivated reasoning, thereby leading to the emergence of the "new partisan voter" (Hetherington 2001; Bafumi and Shapiro 2009; Goren, Federico, and Kittilson 2009; Druckman, Peterson, and Slothuus 2013). In a similar vein, political psychologists have found that the American public's dispositions have become increasingly organized around strong partisan identities, characterized by partisan in-group bias (Iyengar et al. 2012; Mason 2015).

On the other hand, although political psychologists have found that elite polarization has influenced the mass public's *dispositions* such as political identities and affect, this does not demonstrate that elite polarization also influenced the public's *attitudes*. Most notably, Fiorina et al. (2008) have argued that, on the contrary, the American public remains blissfully moderate. Conceptualizing polarization as a bimodal distribution of citizens, where "the two modes of the distribution lie at the

extremes, not near the center” on each issue domain (Fiorina and Abrams 2008), they operationalize the overall degree of polarization as extremism across a host of domains. They found (this was, however, 15 years ago) little evidence of mass polarization, because most American citizens had remained moderate and not diverged from the center on most issues (Fiorina et al. 2008:557; also see Levendusky 2009), a finding confirmed by others (see Hetherington [2009] and Lelkes [2016] for review papers). However, there might well be a different kind of polarization, one in which it is precisely the *nonseparability* of issue domains that leads to a sense that the mass electorate has polarized.

### Polarization as Structured Correlation

A central idea in studies of political attitude since Converse (1964) has been that inter-item correlations are indicative of a structured, or constrained, belief system, as holding one belief tends to imply holding another, as opposed to all arbitrary sets of beliefs being regarded as permissible. There is a good argument to be made that extremism in the absence of constraint would not lead to the appearance of polarization—those who disagreed vehemently on one issue would be firm allies on another. At the same time, the mere presence of constraint is also not indicative of polarization. For one thing, it might well be that individuals have idiosyncratic ways of relating ideas, something that would be missed were one to rely on aggregate statistics (Hunzaker and Valentino 2019). Even if there is structural homogeneity across individuals, it might well be the case that although *variations* from the mean opinions are indeed highly correlated (there is high “tightness” in the sense of Borhek and Curtis [1975] and Martin [2002]), the overall dispersion is low (there is also high “consensus”). Such would be the case if attitudes took on a distribution that is leptokurtic multivariate normal (that is, a bell-shape with a high peak). Finally, it is also possible that there can be high constraint independent of the party system (i.e., that which binds ideas to one another is not what binds *some* ideas to partisan identification).

For this reason, Baldassarri and Gelman (2008) examined both *constraint* (i.e., the degree to which idea-elements are aligned with one another) and *partisan alignment* (i.e., the degree to which idea-elements are aligned with partisanship). Like others (DiMaggio et al. 1996; Park 2018), they found that although partisan alignment increased in recent years, ideological constraint among the American public remained relatively moderate (also see Kozlowski and Murphy 2021).

In sum, existing methods have shed considerable light on aspects of polarization, and although there are still matters of uncertainty, as well as new developments, three conclusions appear warranted. First, the phenomenon of polarization has mainly been driven by political elites, and only to a partial extent accepted by voters. Second, what might seem an increased ideological difference between partisan voters has come mainly from a greater alignment between ideology and partisanship. Although some of this has resulted from long-recognized effects of the breakup of the Democratic “solid South” (Shafer and Johnston 2006), there has been a further wave of partisan alignment coming from the more explicitly ideological pronouncements of party elites.

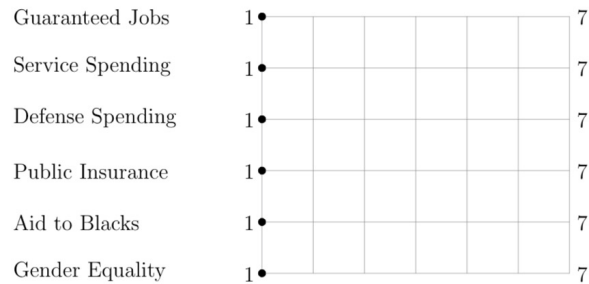
But the third conclusion is that we still do not know very much about the individual, subjective aspects of polarization, for the bulk of existing work takes *aggregate* characteristics (bimodality, correlation, and so on) as the key means for examining polarization. But there is no obvious way to go from such inter-individual statistics to intra-individual statements, which are what we make when we derive arguments about subjectivity (Martin 2000; Borsboom, Mellenbergh, and van Heerden 2003). Although there has been work examining how different individuals perceive the political space (e.g., Pappi, Kurella, and Bräuningner 2021), this has not, to our knowledge, been used to derive rigorous measures of polarization at the *individual* level. We go on to sketch how this could be done.

### Polarization as Mental Maps

Although the first approach (polarization as extremism) and the second (polarization as aligned constraint) see polarization as about the attitude structures of individuals and/or collections of individuals, it is also possible to examine the representations that respondents have of the overall partisan space. As Brady and Sniderman (1985:1061) argued, most citizens draw a map or an image “of who takes the same side as whom and of who lines up on the opposing side of key issues,” and they position themselves in relation to where others stand in this map (also see Sniderman and Stiglitz 2012). Although these perceived partisan and social landscapes, especially those regarding groups, are prone to misperceptions, it is in those spaces, misperceived or not, in which individuals locate themselves in relation to others, make sense of politics and society, and take stances in which, or so they believe, they agree and disagree with others.

Building on these insights, Ahler (2014) proposed to examine a sort of second-order polarization—not how actual mass attitudes are distributed, but how respondents *perceive* this distribution, and most important, the relative positions of and distance between the two main parties (Ahler 2014; Levendusky and Malhotra 2016; Lelkes 2016; Enders and Armaly 2019). Such perceived polarization tends to involve *misperceptions*. For example, partisans tend to exaggerate the degree of polarization and the composition of groups related to the out-party (Ahler and Sood 2018). In particular, partisans are more likely to perceive the political attitudes of the opposing partisans as more extreme than those of their own team. Of course, the mere fact of these “perceptions” can affect the evolution of the distribution of attitudes, and lead to a “self-fulfilling prophecy” whereby each political group becomes more extreme (Ahler 2014; Enders and Armaly 2019; Lees and Cikara 2021).

Thus, differences in individuals’ understandings of the partisan space may get at one aspect of subjective polarization, but, we argue, even more important is how these individuals place themselves in *relation* to the partisan space. To be more precise, we propose that subjective polarization increases with the interaction of three structural features. First is the perceived *distance* between the two parties; the second, the degree of reliance on partisan *logics* in organizing political attitudes; and the third, the degree to which the respondent *leans* towards the political in-group. We go on to operationalize these three features of subjective representations



**Figure 1:** Hypothetical Respondent and Her Political Positions

Note: Each issue domain is a 7-point scale ranging from 1, the “most liberal” position, to 7 the “most conservative” position. Black dots represent the positions of this respondent.

of political space and illustrate with hypothetical examples before turning to our analyses of data.

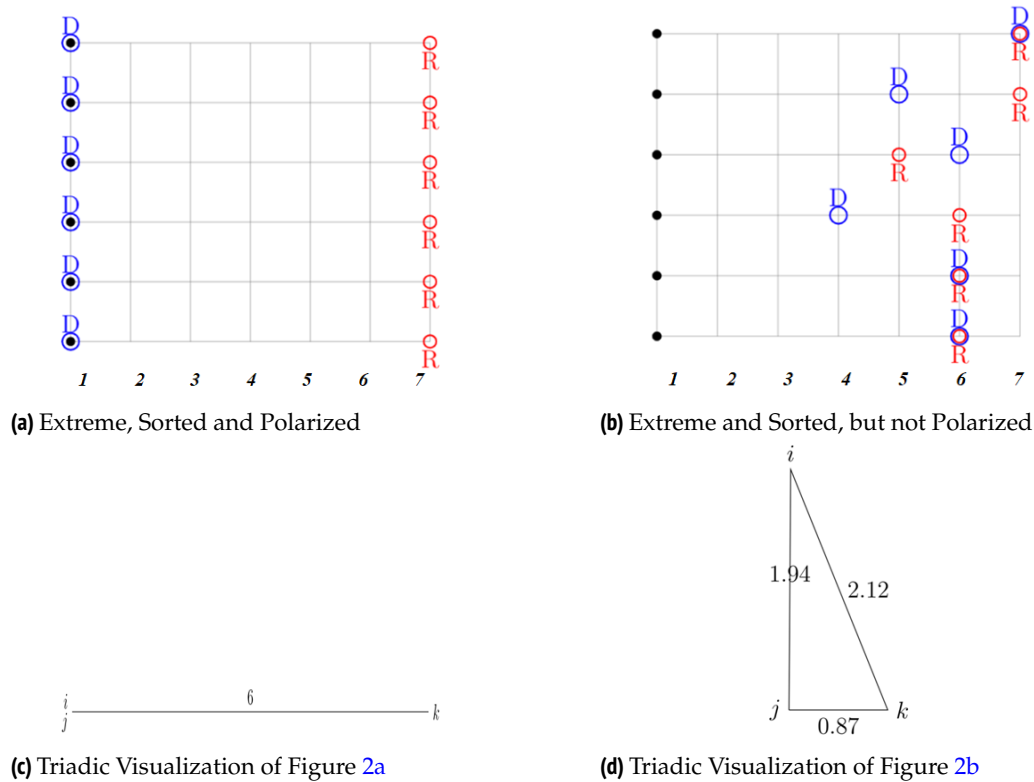
## Subjective Polarization: Stylized Examples

In our hypothetical illustrations, we use the actual questions from the American National Election Studies Dataset that we employ for our empirical analyses, but with fictitious responses. In Figure 1, a hypothetical respondent and her political positions are presented. This is an attitude space comprised of six political issues. Each issue domain is a 7-point scale where 1 refers to the “most liberal” position and 7 to the “most conservative” position.

Note that this format assumes that respondents can orient all items to a liberal–conservative dimension, even though it is possible that certain respondents actually would prefer to orient to a different multidimensional space. The responses that we have, then, are best understood as respondents’ positions reflected through the ideological dimension; this leads to no problems when it comes to respondents who correctly understand how issues align with the overall ideological dimension, but adds noise for those who are unsure or have idiosyncratic interpretations of the liberal–conservative dimension.<sup>3</sup> For this reason, our results are probably somewhat conservative estimates of the degree of polarization. Indeed, we can determine when respondents do not orient to a single dimension because their relations to the two parties will be such that they logically *must* occupy a position off the liberal–conservative dimension. Thus, despite our having to use data projected *onto* this dimension, we are able to identify respondents who are *off* the dimension. Finally, the general approach in no way requires that the positions of items analyzed be located on such a liberal–conservative dimension; this, however, is the format of the questions we will employ.

In Figure 1, the respondent’s positions, represented as black dots, are consistent and extreme (1,1,1,1,1,1). This person places herself on the most liberal position on every issue scale. Both the polarization-as-extremity and polarization-as-alignment perspectives would regard such a respondent as highly polarized because this respondent’s positions are both “sorted” (Abramowitz and Saunders 2008) and





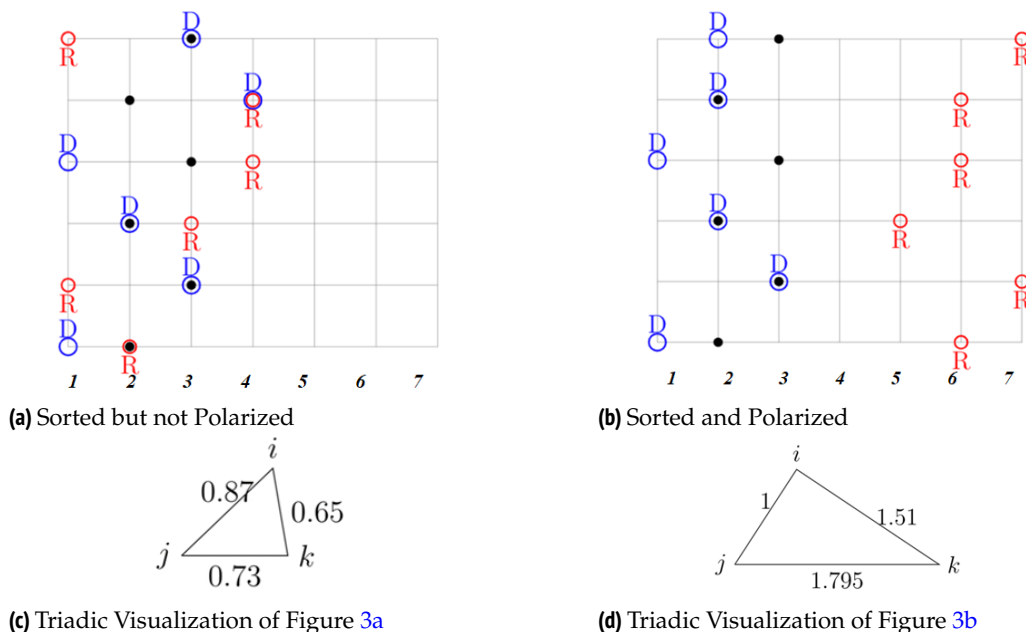
**Figure 2:** Two Respondents

Note: The top panels portray the political position of a hypothetical respondent as dots, with the perceived positions of the Democratic and Republican parties as blue and red circles, respectively. Numbers on the lines in the bottom panels refer to the averaged political distance. Except for Figure 2c, the size and length of each figure are proportional to the political distance scores for visual purposes.

extreme (Fiorina et al. 2008). But we propose that we must also take account of how this respondent understands the parties—both her own, and the competing party—in the same space as herself before we can determine whether she is *polarized*.

To illustrate, consider two respondents who both have the same response vector as portrayed in Figure 1 (see Figures 2a and 2b), but whose perceptions of the two political parties’ positions differ. For simplicity, we assume that both respondents are Democrats. The larger blue circle (‘D’) and the smaller red circle (‘R’), respectively, refer to the positions of the Democratic and Republican parties on each issue as reported by each respondent. When the parties overlap, the circle is thicker.

The political positions of the respondent in Figure 2a are identical with the perceived positions of her political in-group (the Democratic party), and very distant from those of the out-group (the Republican party). She not only perceives the parties to be *distant* but also *leans* heavily to the Democratic party. In fact, using the measures we introduce below, she is as polarized as a political actor can be (with this Likert scale). The respondent in Figure 2b has the same political positions as those in Figure 2a, but has a different perception of political space. She believes both parties to be substantially more conservative on all the issues at hand than she



**Figure 3:** Two Respondents

Note: The top panels portray the political position of a hypothetical respondent as dots, with the perceived positions of the Democratic and Republican parties as blue and red circles, respectively. Numbers on the lines in the bottom panels refer to the averaged political distance. The size and length of each figure are proportional to the political distance scores for visual purposes.

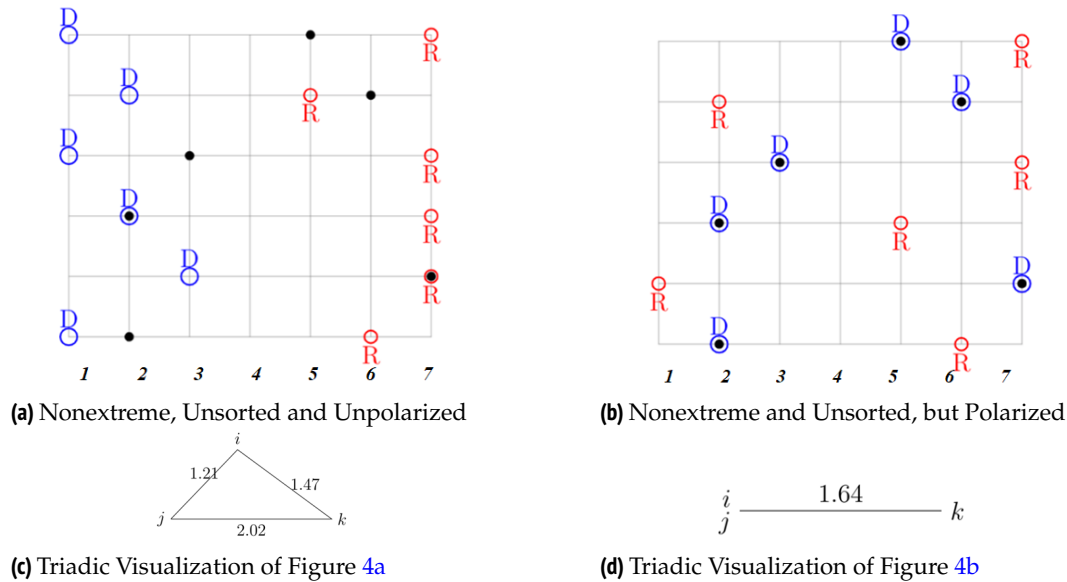
is, suggesting that she will not be *polarized* but, if anything, alienated, as even her political in-group is somewhat foreign to her (see Baldassarri 2013). (We explicate the bottom panels of these figures shortly.)

Figure 3 presents another pair of respondents, also both assumed to be Democrats and also both having positions consistently on the liberal side (3,2,3,2,3,2). The first (Figure 3a), however, is not polarized, because she thinks that the Republican Party (out-group) and Democratic Party (in-group) are ideologically very similar on these issues. The second respondent (Figure 3b), in contrast, is polarized because her political positions consistently align with the Democratic party (in-group) but are distant from the Republican party (out-group).

Finally, in Figure 4, another two respondents are shown. Again, they are both Democrats with identical political positions in every issue domain. Neither has extreme positions, nor consistently ideological ones. Still, the respondent in Figure 4b is more polarized than the one in Figure 4a because the latter’s political positions are consistently close to what she believes her party’s positions to be. Indeed, we must see her as more polarized than the respondent portrayed in Figure 2a, even if her understanding of the party’s positions is totally idiosyncratic.

Thinking about the differences between these examples, we note that there are three separable aspects of polarization. First, there is the degree of *distance* that respondents perceive between political parties. Second, there is the degree to which respondents rely on an overall *partisan logic* in organizing their political attitudes—the degree to which their *own* positions sit on the dimension corresponding to the





**Figure 4:** Two Respondents

Note: The top panels portray the political position of a hypothetical respondent as dots, with the perceived positions of the Democratic and Republican parties as blue and red circles, respectively. Numbers on the lines in the bottom panels refer to the averaged political distance. The size and length of each figure are proportional to the political distance scores for visual purposes.

line that passes between the points of the two parties.<sup>4</sup> Third, there is the degree to which respondents *lean* towards their in-group party. We go on to put forward a way of quantifying these aspects, and hence, the overall degree of subjective polarization of any respondent.

### Formalizing Subjective Models of Polarization

The aspects of polarization we have introduced all turn on the perceived distance that various political “objects” have in the respondents’ mind—these objects being herself (her own position) and the two parties (each with its own position). Let  $i$  refer to the respondent in question,  $j$  to the party with which she identifies, and  $k$  to the other party. We can denote the distance perceived by  $i$  between any two objects ( $a$  and  $b$  for purposes of generality) as  $d_i^{ab}$ . Our analysis of hypothetical cases above suggests the three pieces of information we need to construct a measure of subjective polarization are (1) the distance between the respondent and the in-group ( $d_i^{ij}$ ), (2) her distance to the out-group ( $d_i^{ik}$ ), and (3) the distance between the in-group and the out-group ( $d_i^{jk}$ ).

In our case, the fundamental data at hand are where respondents place themselves and the parties are the ideological dimension regarding  $M$  items. Let  $x_i^{am}$  refer to how the  $i^{\text{th}}$  respondent places object  $a$  (where  $a$  can be herself, either of the parties, or candidates representing either of the parties) on the  $m^{\text{th}}$  item, and then assume these distances to be Euclidian, with all items weighted equally. Thus,

$$d_i^{ab} = \sqrt{\frac{\sum_{m=1}^M (x_i^{am} - x_i^{bm})^2}{M}}. \quad (1)$$

To use the three resulting distances ( $d_i^{ij}$ ,  $d_i^{ik}$  and  $d_i^{jk}$ ) to characterize the subjective polarization of the  $i^{\text{th}}$  respondent, we want three components that tap interparty distance, partisan logic, and partisan lean. The first of these is nothing other than  $d_i^{jk}$  itself; to make it more interpretable, we propose to divide it by the maximum observed ( $d_{\max}^{jk}$ ), such that this component is 1 for those respondents for whom the distance between the parties is greatest. When the two parties have the same position in person  $i$ 's subjective representation,  $d_i^{jk} = 0$ . The second (logic) can be tapped by  $\left(\frac{d_i^{jk}}{d_i^{jk} + d_i^{ij}}\right)$ . Note that when the respondent's own position is exactly on the partisan dimension (the line defined by the parties as poles),  $d_i^{jk} = d_i^{jk} + d_i^{jk}$ ; that is, the distance between the parties is equal to the sum of the distances of the respondent to the two parties. In this case, this term is 1. As this respondent moves "off" this dimension of partisan logic,  $d_i^{jk} < d_i^{ij} + d_i^{ik}$  and hence this term gets smaller and smaller, approaching 0 asymptotically as the respondent becomes infinitely far away from the interpartisan line. The third (lean) can be tapped by  $\left(\frac{d_i^{ik} - d_i^{ij}}{d_i^{ik} + d_i^{ij}}\right)$ . Note that when  $d_i^{ik} = d_i^{jk}$ , and the respondent is evenly between the two parties, this component becomes 0; when  $d_i^{jk} = 0$ , and the respondent occupies exactly the position of her own party, this component is 1.

Putting these together, we construct  $p_i$ , the degree of polarization of respondent  $i$ , as follows:

$$p_i = \left(\frac{d_i^{jk}}{d_{\max}^{jk}}\right) \left(\frac{d_i^{jk}}{d_i^{jk} + d_i^{ij}}\right) \left(\frac{d_i^{ik} - d_i^{ij}}{d_i^{ik} + d_i^{ij}}\right). \quad (2)$$

This number is 1 when all the components of polarization are at their maximum (parties furthest apart, respondent committed to partisan logic, respondent leaning towards own party). To provide concrete examples, we will calculate polarization scores of the hypothetical cases in Figures 2, 3, and 4, portraying the resulting distances as triangles to provide visual presentations of the three features of polarization mentioned above.

Figures 2c and 2d are, respectively, triadic visualizations of the respondents from Figures 2a and 2b. The numbers on the lines refer to the distances between the nodes (e.g., the number on the line between  $i$  and  $k$  is  $d_i^{ik}$ ). Thus, in Figure 2c,  $i$  and  $j$  are in the same spot because the respondent  $i$  perceives her position to be identical with that of her party ( $j$ ) such that the distance is zero. Accordingly,  $d_i^{jk} = d_i^{jk} = 6$ . In Figure 2d,  $d_i^{ij}$  is 1.94 and  $d_i^{jk}$  is 2.12. These two respondents have identical political positions in every issue dimension, but their polarization scores are different because they differ in how they perceive the positions of political parties and how they stand in relation to them. The polarization score of the respondent in Figure 2c is 1 (as this is the maximum possible given the scaling).

In contrast, that of the respondent in Figure 2d is much lower (0.0011<sup>5</sup>) since, first, the respondent sees the two political parties as close to each other; second, the respondent does not appear to orient herself to the partisan spectrum—rather, her position is off the line; and, third, she does not lean much towards her in-group party over the other. Given that the two respondents have identical scores in terms of their attitudinal extremity or issue alignment,<sup>6</sup> we see that the subjective polarization as measured here is not reducible to previous approaches.

Figures 3c and 3d are, respectively, triadic visualizations of the subjective representations of the respondents from Figures 3a and 3b. These two hypothetical respondents also have identical political attitudes, but their ideas about the positions of the parties differ. The respondent in Figure 3c perceives the two political parties to be closer than does the respondent of Figure 3d. The respondent portrayed in Figure 3c is also more distant from *j* than she is to *k*, whereas the one of Figure 3d is closer to *j* than to *k*. Due to these triadic features, the second respondent is more polarized than the first—the first's polarization score is 0.2039, whereas that of the second is 0.3939.

Finally, Figures 4c and 4d are triadic visualizations of the respondents from Figures 4a and 4b. Despite the fact that the first respondent sees the parties as somewhat further apart than does the second, her polarization score (0.0598) is much lower than that of the second respondent (0.6701). This is because the second respondent (Figure 4d), unlike the first (Figure 4c), completely subscribes to the partisan logic (the height of the triangle is zero) and leans as far as possible towards her own party.

One important note: it is possible to have negative values for subjective polarization. This would occur when a respondent actually leans towards the other party—the sort of thing that might happen for a conservative Democrat in the days of the “solid south.”<sup>7</sup> Below, we show that the proportion of those who have a negative score of polarization declines over time. This is consistent with the finding in American public opinion literature that the number of cross-pressured citizens whose political positions and partisanship do not match, including such southern Democrats, has declined (Ellis and Stimson 2012; Noel 2013).

## Data and Methodology

Given this approach to subjective polarization, we now go on to explore changes in, and both predictors and consequences of, this polarization. Data are drawn from the American National Election Studies (ANES) cumulative datafile 1972–2016. ANES is the only national-level dataset that includes questions on how respondents place the political parties as well as themselves on multiple issue domains.<sup>8</sup> There is a total of 55 674 observations across 11 survey waves for the 40 years, but we exclude (1) respondents who do not identify with either of the main two parties,<sup>9</sup> and (2) those without sufficient valid data to allow us to measure the set of distances in at least two issue domains. After excluding these, we have 23 309 respondents with valid data for our largest analyses.

*Subjective Polarization.* The items in the cumulative file allowing the construction of these measures are the 7-point issue scales whose names are *Defense Spending*,

*Women Equal Role, Aid to Blacks, Government Health Insurance, Government Services-Spending, Guaranteed Jobs and Living, Cooperation with USSR, Rights of the Accused, Urban Unrest, and School Busing.*<sup>10</sup> Respondents were asked to place *themselves*, to place the two political *parties*, and the parties' *candidates* for president on these dimensions. This gives us two different ways of determining subjective polarization; for purposes of brevity, we sometimes concentrate on the former, but supply replications using the latter in a supplementary file. Using these issue scales, we calculate individual-level polarization using the equation (2), with  $a_{\max}^{jk}$  set to the theoretical maximum of 6, which means the polarization score can, in principle, range from -1 to 1.<sup>11</sup>

*Partisan animus.* Each individual rated the parties on a “feeling thermometer.” To measure partisan animus, we calculate the difference between the values of the in-group party and the out-group party, the conventional measure of affective polarization (Iyengar et al. 2012; Druckman and Levendusky 2019). We do this with data on respondents' placements of the *parties* on a feeling thermometer, but also their placements of the parties' *presidential candidates*, of their members (*partisans*), and of *ideologues* (liberals and conservatives).

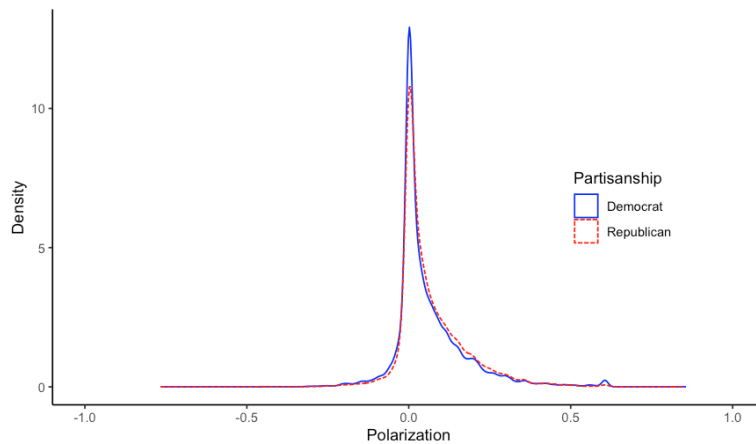
*Control Variables.* We also include a set of control variables. *Partisan strength* is a 3-scale index that ranges from weak identifier (1) to strong identifier (3).<sup>12</sup> *Ideological strength* is a 4-scale index that ranges from no ideological identification to strong ideological identification. Demographic factors that are said to be associated with political opinions and social perceptions are also included, with codings that result from ANES's wordings. These are level of *education* (with four categories), *race* (here a dummy variable, black/non-black), *income* (with five categories), residence in the South (a dummy for being in one of the 11 secession states), *gender* (male/nonmale), and *employment* (employed versus something else).<sup>13</sup>

We begin by examining trends in subjective political polarization at the aggregate level. We then go on to use linear models to determine whether those persons who are higher in this polarization are more affectively polarized and, if so, whether our measure of subjective polarization adds anything to existing measures of partisan attachment.

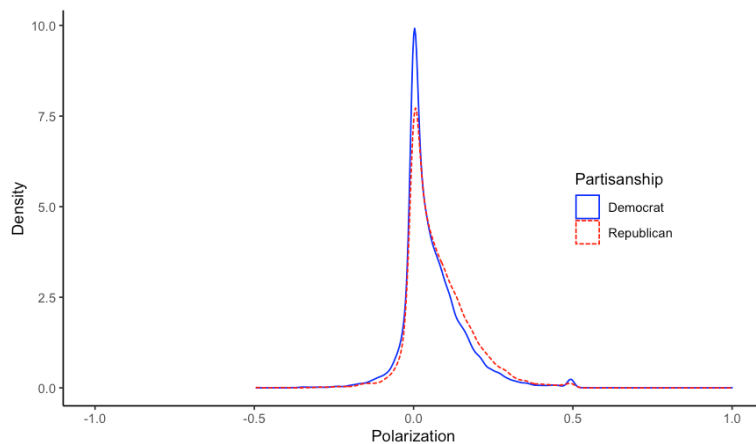
## Results

### Trends in Subjective Polarization

Has subjective polarization changed over time, and are these changes symmetric by party? Before answering this, we wish to get a sense of the overall distribution of the partisans in terms of their polarization across all waves (Figure 5). The top panel (Figure 5a) uses the data on how respondents place the *parties* themselves, and the bottom panel (Figure 5b) uses the data on how respondents place the parties' presidential *candidates*. A group is more polarized to the extent more respondents have higher polarization scores. For both measures, with the exception of some (moderately) negatively polarized respondents (16.8% for the top panel, 17.4% for the bottom), we see a skewed distribution—most people are not very polarized, but a few people are very polarized indeed. Further, Republicans are, on average,



(a) Party Positions

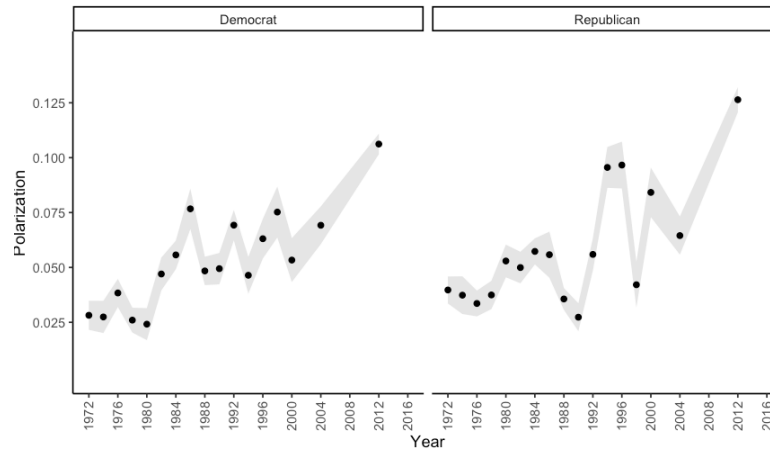


(b) Candidate Positions

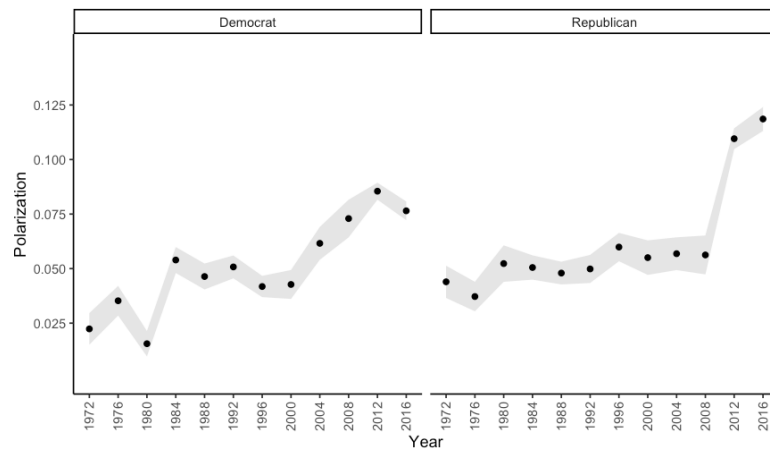
**Figure 5:** Distribution of Political Polarization by Partisanship

somewhat more subjectively polarized than Democrats; mean polarization scores are 0.076 and 0.059, respectively.

Has there indeed been an increase in subjective polarization over time? Figure 6 displays the trends over the course of the data (1972 to 2016) separately for Democrats and for Republicans (the shaded band gives the 95% confidence intervals for the means via bootstrapping). Once again, the top panel (Figure 6a) has results using data on how respondents place the parties themselves, and the bottom (Figure 6b) has those regarding how respondents place the parties' presidential candidates. The pattern is easier to see in the latter than the former, largely because of anomalous results for 1998, a non-presidential year (hence omitted in the second series). Still, our overall substantive conclusions are the same: In the early 2000s, Democrats surpassed Republicans in their average degree of subjective polarization for the first time, but in the 2010s, the Republican party surged to quite unprecedented levels



(a) Party Positions



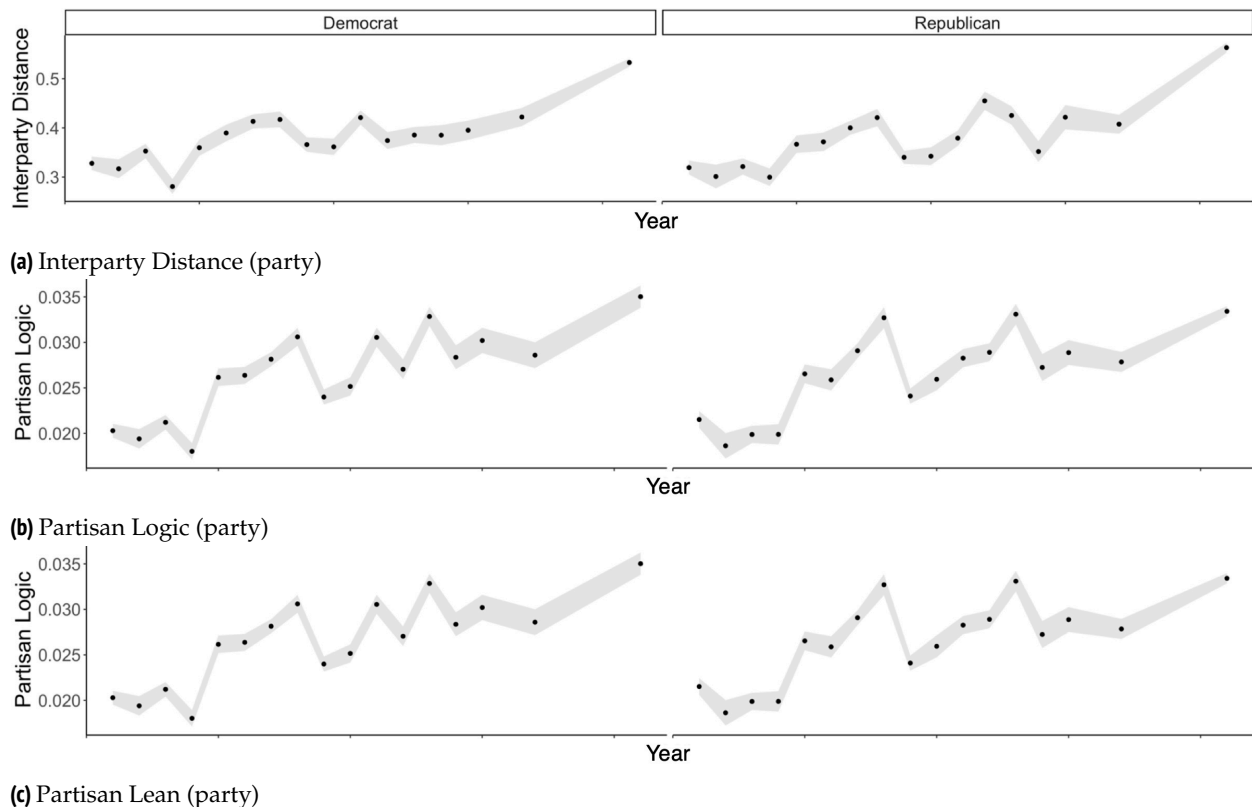
(b) Candidate Positions

**Figure 6:** Extent of Political Polarization by Partisanship and Year

of polarization. Of course, because one component of the polarization measure is simply the respondent’s assessment of the distance between the parties, we might expect such an increase simply due to respondents correctly noting that the parties have, indeed, moved further apart in the ideological space. To see whether our results have such a simple interpretation, in Figures 7 and 8, we disaggregate the measures (for party and candidates, respectively) to see how the components move separately.

The first panel in each figure (Figures 7a and 8a) demonstrates that it is indeed the case that American partisans believe that the distance has increased between the two parties—or at least, Americans now believe the parties to be further apart than they used to. Here, Republicans and Democrats seem more similar than in the previous finding, although again we see that in the most recent surveys, Republicans had an extremely high estimate of this inter-party distance, especially regarding candidates. Could this increasing distance between the parties drive the results for the other measures? It is worth briefly considering how, purely



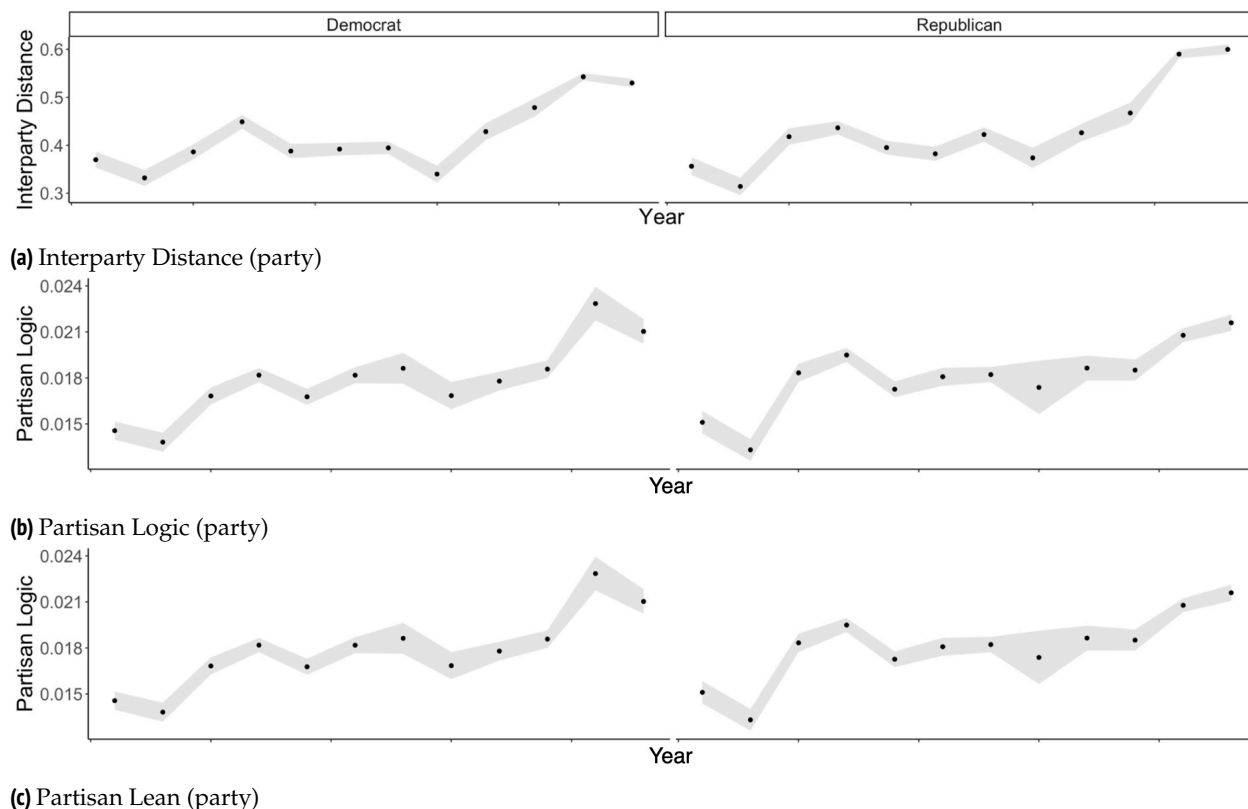


**Figure 7:** Components of Polarization by Year—Party Positions

in mathematical terms, an increase in  $d^{jk}$  would affect the other measures. First, consider any respondent's closeness to the interpartisan line. If her position in an ideational space remains the same while the parties diverge more, although her distance from the line will not change, the triangle of which she is the apex will get flatter and flatter, and hence our measure of *partisan logic* will increase.

In contrast, it in no way follows that *partisan lean* should be expected to increase with  $d^{jk}$ ; indeed, we might imagine that if some respondent sees both parties as moving away from the center while her own position does not change, her degree of lean would *decrease*. If, however, the two parties "receded" from the respondent at velocities proportional to their existing distance, the respondents lean would not change, and hence an increase in lean would mean that the respondent believes that the inter-party distance is growing because the *other* party is becoming more extreme.

Figures 7b and 8b examine changes in *partisan logic*, and, indeed, these track changes in the panel above, suggesting that, in general, the increase in *partisan logic* might be due mostly to the increasing distance between the parties. But there is an exception: In the 1990s, Democrats became more in accord with the partisan dimension even though they did not think that the parties had gotten further apart. Given that this is the time when the solid south in Congress broke apart (Noel 2013),



**Figure 8:** Components of Polarization by Year—Candidate Positions

this may be less because Democrats changed their minds and more because the sorts of people who believed they were Democrats changed.

Figures 7c and 8c show changes in partisan *lean* which, we have noted, do not have any obvious reason to change with interparty distance. Most of the time, for both parties, average lean is somewhere around .25–.30, but we see two significant changes. The first is a “catch-up,” in which Democrats, who had low average lean, caught up with the Republicans in the early 1980s. This again seems due to the end of the solid south system in which many southern Democrats had policy preferences at odds with those of the national party. The second change is a burst of much higher lean among Republicans in 2010, especially regarding candidates (Figure 8c). In other words, although in recent years, members of both parties have recognized the yawning divide between the parties, which has affected their own closeness to the “partisan line,” Republicans (but not Democrats) have recently increased their lean towards their own party—that is, they act as if they were in a world in which the Democratic party had moved faster than the Republican (though that would be the case only if all the respondents had not changed their own positions, and we know this is not true of the average Republican over this time).

The nature of the polarization measure as a product of three variables bounded by 0 and 1 (between -1 and 1 for *lean*) makes it difficult to do a conventional decomposition of variance, but in Supplementary Appendix C, we use successive

cumulative plots to indicate the weight of the contribution of the different components. Although there is no way to make an absolute assessment of the contribution of these components, a comparison across party is unbiased and suggests the two parties have relatively similar breakdowns of the components of polarization, with the exception of the “low lean” characterizing the Democratic party in the earliest years of the series.

The increases in subjective polarization that we have documented are unlikely to be a surprise. However, the validation of this measure as tapping degrees of subjective polarization then allows us to use this to tackle questions that would otherwise be impossible to answer—what sorts of people inhabit the most polarized worldviews? And to what extent can this be seen as responsible for increasing partisan animus?

### Polarization as Predicted and Predictor

To begin to answer these questions in a parsimonious way, we conduct several regressions of polarization on sociodemographic indicators. Models 1 and 2 of Table 1 show us, for *party* and *candidate* positions, respectively, that polarization increases with education (the omitted category is “less than grade school”) and decreases with employment. (All models in Table 1 also include fixed effects for year; replication without these terms did not change our conclusions.) Models 3 and 4 then add partisan and ideological strength to Models 1 and 2, respectively. We can see that the addition of these measures does not affect our conclusions. It is true that partisans and ideologues are more polarized than others—indeed, the amount of variation explained is considerably higher in Models 3 and 4 than in Models 1 and 2—but this is not why the educated are more polarized. Indeed, Models 5 and 6, which regress partisan strength and ideological strength on the same predictors as used in Models 1 and 2, demonstrate that the sorts of people who are strong partisans or ideologically oriented are not the same sorts of people who are highly polarized (Iyengar et al. 2019; Ellis and Stimson 2012).<sup>14</sup> In particular, although subjective polarization, *ceteris paribus*, increases steadily with education, partisan strength is greatest among the *least* educated, and the relation of education with ideological strength is non-monotonic.

In sum, it is true that those who have stronger feelings about politics, whether in partisan or ideological terms, are more polarized. But when we try to describe, in social and demographic terms, what sorts of people are highly polarized—the educated and the unemployed—this is not due to their partisanship or ideological orientation. The partial independence of polarization from ideology suggests it might also have independent effects. We go on to use this measure to predict partisan animus—a strong emotional preference for one’s own party over the other party.

It is not at all surprising that partisan animus—the difference between the “warmth” one feels to one’s own party and that which one feels to the other party—goes up with the strength of partisan attachment (*partisan strength*), and with *ideological strength* (Iyengar et al. 2012; Rogowski and Sutherland 2016; Webster and Abramowitz 2017). (Here we use models that are based on party positions; Supple-

**Table 1:** OLS Regression Models Predicting Polarization

	<i>Subjective Polarization</i>		<i>Partisan Strength</i>		<i>Ideological Strength</i>	
	(party) OLS (1)	(cand) OLS (2)	(party) OLS (3)	(cand) OLS (4)	OLS (5)	OLS (6)
<i>Partisan Strength</i>			0.021 <sup>‡</sup> (0.001)	0.018 <sup>‡</sup> (0.001)		
<i>Ideological Strength</i>			0.019 <sup>‡</sup> (0.001)	0.019 <sup>‡</sup> (0.001)		
<i>Education</i> (ref: Grade school or less)						
High school	-0.005 (0.003)	-0.004 (0.003)	0.006 (0.004)	0.010* (0.004)	-0.218 <sup>‡</sup> (0.018)	-0.128 <sup>‡</sup> (0.030)
Some college	-0.001 (0.003)	0.004 (0.004)	0.010 <sup>†</sup> (0.004)	0.016 <sup>‡</sup> (0.004)	-0.250 <sup>‡</sup> (0.019)	-0.020 (0.031)
College	0.016 <sup>‡</sup> (0.003)	0.014 <sup>‡</sup> (0.004)	0.021 <sup>‡</sup> (0.004)	0.020 <sup>‡</sup> (0.004)	-0.192 <sup>‡</sup> (0.020)	0.138 <sup>‡</sup> (0.031)
<i>Black</i>	0.044 <sup>‡</sup> (0.002)	0.031 <sup>‡</sup> (0.002)	0.036 <sup>‡</sup> (0.002)	0.022 <sup>‡</sup> (0.002)	0.287 <sup>‡</sup> (0.013)	-0.050 <sup>†</sup> (0.019)
<i>Income Percentile</i> (ref: 0 to 16)						
17 to 33	-0.001 (0.003)	0.005* (0.002)	-0.001 (0.003)	0.009 <sup>‡</sup> (0.003)	0.048 <sup>‡</sup> (0.015)	-0.003 (0.022)
34 to 67	0.001 (0.002)	0.008 <sup>‡</sup> (0.002)	0.004 (0.002)	0.010 <sup>‡</sup> (0.002)	0.040 <sup>‡</sup> (0.014)	-0.026 (0.019)
68 to 95	0.006* (0.002)	0.013 <sup>‡</sup> (0.002)	0.009 <sup>‡</sup> (0.003)	0.015 <sup>‡</sup> (0.002)	0.038 <sup>†</sup> (0.015)	-0.015 (0.020)
96 to 100	0.013 <sup>‡</sup> (0.004)	0.019 <sup>‡</sup> (0.004)	0.014 <sup>‡</sup> (0.004)	0.020 <sup>‡</sup> (0.004)	0.106 <sup>‡</sup> (0.022)	0.030 (0.029)
<i>Male</i>	-0.001 (0.001)	-0.002 (0.001)	-0.0005 (0.001)	-0.002 (0.001)	-0.070 <sup>‡</sup> (0.009)	0.079 <sup>‡</sup> (0.012)
<i>South</i>	-0.002 (0.002)	0.002 (0.001)	-0.003* (0.002)	-0.001 (0.002)	0.008 (0.009)	0.052 <sup>‡</sup> (0.013)
<i>Employment</i>	-0.007 <sup>‡</sup> (0.002)	-0.008 <sup>‡</sup> (0.001)	-0.005 <sup>‡</sup> (0.002)	-0.006 <sup>‡</sup> (0.002)	-0.097 <sup>‡</sup> (0.009)	-0.027* (0.013)
Constant	0.030 <sup>‡</sup> (0.004)	0.023 <sup>‡</sup> (0.004)	-0.046 <sup>‡</sup> (0.005)	-0.044 <sup>‡</sup> (0.005)	2.237 <sup>‡</sup> (0.023)	0.978 <sup>‡</sup> (0.038)
Observations	23 309	19 699	19 037	15 764	34 020	25 419
$R^2$	0.094	0.086	0.160	0.156	0.034	0.029
Adjusted $R^2$	0.093	0.085	0.159	0.154	0.033	0.028
Residual Std. Error (df)	0.104 (23 281)	0.094 (19 676)	0.099 (19 007)	0.088 (15 739)	0.778 (33 990)	0.914 (25 389)
$F$ Statistic (df1, df2)	89.499 <sup>‡</sup> (27; 23 281)	84.035 <sup>‡</sup> (22; 19 676)	124.920 <sup>‡</sup> (29; 19 007)	120.843 <sup>‡</sup> (24; 15 739)	41.181 <sup>‡</sup> (29; 33 990)	26.537 <sup>‡</sup> (29; 25 389)

‡  $p < 0.001$ ; †  $p < 0.01$ ; \*  $p < 0.05$ .

OLS Regression. Two-tailed test. Standard Error in parentheses. Missing values are excluded in the analysis. Year fixed effect included. *Less than grade school* for education and *0 to 16* for income percentile omitted.

mentary Appendix D shows that replicating with the candidate-based measures leads to only very minor differences.) In Table 2, Models 1 and 2, we present these well-known relations as simple bivariate regressions. The relations are highly significant given the large sample size, but the correlations are relatively modest (the  $R^2$ s are .165 and .067, respectively). Model 3 uses the measure of polarization that we have introduced as a predictor, and its effect is stronger than either of the others. Of course, we must recognize that partisan strength, with only three values, is somewhat hampered in being a strong predictor; still, overall, it appears our measure of polarization has greater predictive power than other predictors that have been used in the past, and hence may be better at tapping the subjective experience of polarization.

Model 4 includes all three predictors simultaneously, and Model 5 includes the same socio-demographic predictors that we have used to predict polarization and partisanship in Table 1. (Models 5 through 8, Table 2, include fixed effects for year; eliminating these did not change our conclusions.) In both cases, we find that all three measures are good predictors of partisan animus. In other words, it appears there are three different subjective orientations that can increase partisan animus—one may be strongly attached to one's party, one may be ideologically committed, or one can have a subjective representation of the political space and one's place in it that is inherently polarized.<sup>15</sup> Finally, Models 6, 7, and 8 replicate Model 5, but instead of using feeling thermometer placements of the parties to determine partisan animus, they use, respectively, parties' presidential *candidates*, their members (*partisans*), or the *ideologies* associated with them (liberal and conservative). In all cases, we find that subjective polarization is a strong, independent predictor of partisan animus.

## Discussion and Conclusion

We have proposed a new approach to political polarization, one which treats polarization as a characteristic of individuals' perceptions of the relationships between themselves and the two major political parties in their own subjective representations of political space. We have demonstrated that this measure—one wholly at the individual level—tracks changes in polarization that have generally been studied using aggregate statistics, and allows a more detailed examination of the different components of these subjective representations than has previously been the case. Second, we demonstrate that this measure of subjective polarization is a relatively strong predictor of partisan animus—stronger than the often-used measures of partisan and ideological strength.

Further, this paper makes three methodological contributions to cultural sociology. First, although formal analyses of culture (Mohr 1998; Martin 2002; Baldassarri and Goldberg 2014; Boutyline and Vaisey 2017; DellaPosta 2020) have focused on how idea elements are related to each other, this paper analyzes how idea elements are positioned in relation to in/out groups. Second, although most formal approaches remain at the aggregate level, this paper shows that such a formal—almost Simmelian—approach can be fruitfully applied to individual-level analysis. Third, although most scholars of culture have used *inductive* methods, which aim

**Table 2:** OLS Regression Models Predicting Partisan Animus

	<i>Partisan Animus</i> (party)				<i>Partisan Animus</i> (candidate) (partisan) (ideology)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Partisan Strength</i>	14.967‡ (0.233)			11.371‡ (0.238)	10.946‡ (0.246)	7.736‡ (0.372)	6.771‡ (0.416)	2.729‡ (0.275)
<i>Ideological Strength</i>		8.158‡ (0.233)		3.897‡ (0.207)	4.155‡ (0.214)	4.584‡ (0.323)	2.085‡ (0.355)	9.828‡ (0.239)
<i>Subjective Polarization</i> (party)			112.677‡ (1.643)	89.704‡ (1.733)	80.358‡ (1.837)	116.280‡ (2.870)	72.459‡ (3.960)	68.640‡ (2.093)
<i>Education</i> (ref: Grade school or less)								
High school					1.338 (1.139)	4.382‡ (1.516)	0.944 (1.186)	6.353‡ (1.111)
Some college					0.808 (1.160)	5.636‡ (1.559)	0.402 (1.281)	10.357‡ (1.145)
College					0.943 (1.178)	6.664‡ (1.589)	-0.565 (1.316)	14.748‡ (1.166)
<i>Black</i>					5.241‡ (0.623)	3.288‡ (0.942)	9.315‡ (1.176)	-8.316‡ (0.703)
<i>Income Percentile</i> (ref: 0 to 16)								
17 to 33					0.398 (0.724)	1.486 (1.097)	0.754 (1.298)	0.883 (0.818)
34 to 67					-0.429 (0.635)	1.183 (0.951)	-0.111 (1.137)	2.521‡ (0.714)
68 to 95					-1.678* (0.670)	0.666 (1.007)	-0.328 (1.173)	3.463‡ (0.752)
96 to 100					-1.752 (0.936)	2.573 (1.433)	-0.289 (1.563)	4.660‡ (1.057)
<i>Male</i>					-0.714 (0.383)	0.036 (0.582)	0.501 (0.651)	1.649‡ (0.429)
<i>South</i>					-0.251 (0.422)	-3.309‡ (0.647)	0.087 (0.734)	-1.778‡ (0.477)
<i>Employed</i>					-1.127‡ (0.419)	-2.415‡ (0.630)	-0.831 (0.695)	-1.441‡ (0.465)
Constant	0.595 (0.521)	23.067‡ (0.338)	24.051‡ (0.216)	-2.330‡ (0.530)	-6.346‡ (1.455)	-2.275 (1.932)	-3.217 (1.718)	-16.524‡ (1.486)
Observations	20 913	17 243	20 913	17 243	15 935	12 695	4 453	17 943
R <sup>2</sup>	0.165	0.067	0.184	0.310	0.340	0.277	0.204	0.241
Residual Std. Error (df)	26.944 (20 911)	28.119 (17 241)	26.635 (20 911)	24.174 (17 239)	23.647 (15 907)	32.032 (12 671)	20.542 (4 434)	28.002 (17 913)

‡  $p < 0.001$ ; †  $p < 0.01$ ; \*  $p < 0.05$ .OLS Regression. Two-tailed test. Standard Error in parentheses. Missing values are excluded in the analysis. Year fixed effect included. *Less than grade school* for education and *0 to 16* for income percentile omitted.



at identifying *general* patterns from the data (e.g., latent class analysis), here we have deductively formulated an analytically meaningful patterning of political idea-elements, theorized the characteristics of this deductively constructed entity, and empirically examined the antecedents and consequences of such polarization in existing data.

This approach has three theoretical implications. The first is, in a way, an extension of the famous “Thomas dictum,” namely that the significance of social situations for action is refracted through the subjectivity of actors, and their own “definition of the situation.” We are not the first to make this point: Baldassarri and Gelman (2008) have shown that mass opinion polarization in the United States is characterized neither by how Americans deploy extreme positions nor by how they “sort” their positions into conservative versus liberal, but rather by how they align their idea-elements with their partisan affiliation (also see Hetherington 2001; Bafumi and Shapiro 2009)—in other words, how they understand their relations to the partisan space.

Second, by moving towards a “cognitively grounded” (DiMaggio 1997) theory, we do not merely examine polarization as a subjective phenomenon, but allow for individual variation in the phenomenological experience of the partisan landscape (in contrast to a theory of people’s subjective responses to the *same* situation). By bringing together the different views and assumptions that respondents have about the parties and their own positions, but in a tractable form of a compound measure (as opposed to a sprawling investigation of hyperdimensional complexity), we can do justice to inter-individual variability without losing the capacity to make inter-individual comparisons.

Third, by examining these subjective representations of fundamentally social spaces, we can begin a profitable examination of the strange duality inherent in any truly sociological political psychology. Of course, when respondents estimate the position of parties on various issue dimensions, they might be basing their ideas on explicit pronouncements made by party leaders, or by an assessment of actions taken by such persons. In this sense, their opinions (right or wrong) are anchored in an exogenous process. But they may also make such estimations based on what they hear from (those whom they take to be) Republican and Democratic supporters. This, then, would involve a sort of endogeneity that could fuel a self-fulfilling prophecy—those who believe themselves to be in a polarized world treat others in such a way as to polarize *them*.

In sum, the approach put forward here helps us grasp key aspects of the individual-level foundations of polarization. Although polarization is a mass-level phenomenon, individuals are themselves embedded in, and, to varying extents, cognizant of, this aggregate phenomenon. As a result, a key component of the situation is their own definition of the situation and understanding of their relation to that situation. By examining these individually varying subjective representations of the political space, we can determine which persons inhabit the more polarized subjective worlds, thus developing sets of ideas about the nature of the polity that may guide their behavior and, to some extent, make themselves true.

## Notes

- 1 Further, there is reason to believe that such variations are increasing in the American public (Oliver and Wood 2018; Hunzaker and Valentino 2019; Finkel et al 2020).
- 2 Some voters may believe they are outside the spectrum covered by the parties more because they do not know what the parties' positions are, and less because they actually have an ideology at odds with those of the party system.
- 3 In case this is unclear, consider a respondent who rejects the importance of the liberal-conservative distinction for her own attitudes, instead thinking in terms of support of underdogs versus Overdogs (on the one hand) and treasuring all life as sacred versus Being materialist (on the other). She herself occupies a classic "Catholic worker" position, and thus is pro-life on abortion and against the death penalty. To her, these two positions are *close* in her subjective space, but she correctly note that she is on the right side regarding the first and the left side regarding the second. When we position her in the attitude space using her reports refracted through the ideological dimension, they will be correctly placed, despite her rejection of this dimension as personally meaningful.
- 4 Note that a respondent can have a low degree of partisan organization either if her various *specific* issues are located in a multidimensional space far from the line of partisan logic, *or if*, although the individual issues are located in a partisan space, she is "cross-pressured" in having the position of these attitudes on the partisan dimension vary greatly. Although we cannot directly measure the first, it, like the second, will lead the overall distance of the respondent from both parties to be high, "pushing" her off the partisan line.
- 5  $d_i^{ij}$  is  $\sqrt{(6^2 + 4^2 + 5^2 + 3^2 + 5^2 + 5^2)/6} = \sqrt{136/6}$ ;  
 $d_i^{ik}$  is  $\sqrt{(6^2 + 6^2 + 4^2 + 5^2 + 5^2 + 5^2)/6} = \sqrt{163/6}$ ;  
 $d_i^{jk}$  is  $\sqrt{(0^2 + 2^2 + 1^2 + 2^2 + 0^2 + 0^2)/6} = \sqrt{9/6}$ .
- 6 A conventional measure of alignment is whether the positions across multiple issue domains are consistent; because both respondents' positions are to the left from the center in all six issue domains, these alignments are perfect for both. For various attempts to measure ideological consistency, see Mason (2013, 2015), Bougher (2017), Bail et al. (2018), Barton and Parsons (1977), Wyckoff (1980), and Ansolabehere, Rodden, and Snyder (2008).
- 7 Further information on negative polarization is provided in Supplementary Appendix B.
- 8 The data on respondents' perceptions of the parties have been rarely used in research until recently (see Ahler [2014], Ahler and Sood [2018], and Enders and Armaly [2019] for recent exceptions).
- 9 Respondents are first asked, "Generally speaking, do you usually think of yourself as a REPUBLICAN, a DEMOCRAT, an INDEPENDENT, or what?" Those who first claim to be independent are then asked, "Do you think of yourself as CLOSER to the Republican Party or to the Democratic party?" Those who lean toward either of these parties are, as is conventional in most analyses using these data, assumed to treat this party as the in-group. There is a decrease in the proportion not identifying with either party, which tends to be around 15% in the 1970s, around 13% in the 1980s, and dropping to a low of 9.2% in 1996. It then rises to around 11% in the 2000s and returns to 13.5% for the 2010s.
- 10 The issue of cooperation with USSR does not appear after 1988. The last three issues (school busing, rights of the accused, and urban unrest) cease to appear in the ANES survey after 1976.

- 11 Some respondents placed their in-group, out-group, and themselves in the same position across all the issue domains. In this case, the denominator of the polarization measure is zero since there is neither internal nor external distance. To preserve these observations, we add a small value (0.1) to the denominator for all cases. Excluding these cases does not change the statistical results.
- 12 Those who first say in response to the partisanship question that they identify with a party are then asked, “Would you call yourself a STRONG [Democrat/Republican] or a NOT VERY STRONG [Democrat/Republican]?” This produces the *strong* and *middling* identifiers; those who first say that they are independent but then that they lean towards one party (see note 9) are considered *weak* identifiers.
- 13 Further information on these variables can be found in Supplementary Appendix A.
- 14 These results are similar when we look separately at Democrats and Republicans (see Supplementary Appendix D).
- 15 Again, our conclusions are unchanged if we use respondents’ views of *candidates’* positions as opposed to *parties’* positions to construct our distances (see Supplementary Appendix D).

## References

- Abramowitz, Alan I., and Kyle L. Saunders. 2008. “Is Polarization a Myth?” *Journal of Politics* 70(2):542–55. <https://doi.org/10.1017/S0022381608080493>
- Ahler, Douglas J. 2014. “Self-fulfilling Misperceptions of Public Polarization.” *Journal of Politics* 76(3):607–20. <https://doi.org/10.1017/S0022381614000085>
- Ahler, Douglas J., and Gaurav Sood. 2018. “The Parties in Our Heads: Misperceptions About Party Composition and Their Consequences.” *Journal of Politics* 80(3):964–81. <https://doi.org/10.1086/697253>
- Aldrich, John H. 1995. *Why Parties?: The Origin and Transformation of Political Parties in America*. Chicago: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226012773.001.0001>
- Ansolabehere, Stephen, Jonathan Rodden, and James M. Snyder, Jr. 2008. “The Strength of Issues: Using Multiple Measures to Gauge Preference Stability, Ideological Constraint, and Issue Voting.” *American Political Science Review* 102(2):215–32. <https://doi.org/10.1017/S0003055408080210>
- Bafumi, Joseph, and Robert Y. Shapiro. 2009. “A New Partisan Voter.” *Journal of Politics* 71(1):1–24. <https://doi.org/10.1017/S0022381608090014>
- Bail, Christopher A., Lisa P. Argyle, Taylor W. Brown, John P. Bumpus, Haohan Chen, M. B. Fallin Hunzaker, Jaemin Lee, Marcus Mann, Friedolin Merhout, and Alexander Volfovsky. 2018. “Exposure to Opposing Views on Social Media Can Increase Political Polarization.” *Proceedings of the National Academy of Sciences* 115(37):9216–21. <https://doi.org/10.1073/pnas.1804840115>
- Baldassarri, Delia. 2013. *The Simple Art of Voting: The Cognitive Shortcuts of Italian Voters*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199828241.001.0001>
- Baldassarri, Delia, and Andrew Gelman. 2008. “Partisans Without Constraint: Political Polarization and Trends in American Public Opinion.” *American Journal of Sociology* 114(2):408–46. <https://doi.org/10.1086/590649>

- Baldassarri, Delia, and Amir Goldberg. 2014. "Neither Ideologues nor Agnostics: Alternative Voters' Belief System in an Age of Partisan Politics." *American Journal of Sociology* 120(1):45–95. <https://doi.org/10.1086/676042>
- Barton, Allen H., and R. Wayne Parsons. 1977. "Measuring Belief System Structure." *Public Opinion Quarterly* 41(2):159–80. <https://doi.org/10.1086/268372>
- Bonikowski, Bart, Yuval Feinstein, and Sean Bock. 2021. "The Partisan Sorting of 'America': How Nationalist Cleavages Shaped the 2016 U.S. Presidential Election." *American Journal of Sociology* 127:492–561. <https://doi.org/10.1086/717103>
- Borhek, James T., and Richard F. Curtis. 1975. *A Sociology of Belief*. New York: John Wiley and Sons.
- Borsboom, Denny, Gideon J. Mellenbergh, and Jaap van Heerden. 2003. "The Theoretical Status of Latent Variables." *Psychological Review* 110(2):203–19. <https://doi.org/10.1037/0033-295X.110.2.203>
- Boucher, Lori D. 2017. "The Correlates of Discord: Identity, Issue Alignment, and Political Hostility in Polarized America." *Political Behavior* 39(3):731–62. <https://doi.org/10.1007/s11109-016-9377-1>
- Boutyline, Andrei, and Stephen Vaisey. 2017. "Belief Network Analysis: A Relational Approach to Understanding the Structure of Attitudes." *American Journal of Sociology* 122(5):1371–447. <https://doi.org/10.1086/691274>
- Brady, Henry E., and Paul M. Sniderman. 1985. "Attitude Attribution: A Group Basis for Political Reasoning." *American Political Science Review* 79(4):1061–78. <https://doi.org/10.2307/1956248>
- Converse, Philip E. 1964. "The Nature of Belief Systems in Mass Publics." Pp. 206–61 in *Ideology and Discontent*, edited by D. Apter. New York: Free Press.
- DellaPosta, Daniel. 2020. "Pluralistic Collapse: The 'Oil Spill' Model of Mass Opinion Polarization." *American Sociological Review* 85(3):507–36. <https://doi.org/10.1177/0003122420922989>
- DiMaggio, Paul. 1997. "Culture and Cognition." *Annual Review of Sociology* 23(1):263–87. <https://doi.org/10.1146/annurev.soc.23.1.263>
- DiMaggio, Paul, John Evans, and Bethany Bryson. 1996. "Have American's Social Attitudes Become More Polarized?" *American Journal of Sociology* 102(3):690–755. <https://doi.org/10.1086/230995>
- Druckman, James N., and Matthew Levendusky. 2019. "What Do We Measure When We Measure Affective Polarization?" *Public Opinion Quarterly*, 83(1):114–22. <https://doi.org/10.1093/poq/nfz003>
- Druckman, James N., Erik Peterson, and Rune Slothuus. 2013. "How Elite Partisan Polarization Affects Public Opinion Formation." *American Political Science Review*:57–79. <https://doi.org/10.1017/S0003055412000500>
- Ellis, Christopher, and James A. Stimson. 2012. *Ideology in America*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CB09781139094009>
- Enders, Adam M., and Miles T. Armaly. 2019. "The Differential Effects of Actual and Perceived Polarization." *Political Behavior* 41(3):815–39. <https://doi.org/10.1007/s11109-018-9476-2>
- Finkel, Eli J., Christopher A. Bail, Mina Cikara, Peter H. Ditto, Shanto Iyengar, Samara Klar, Lilliana Mason, Mary C. Mcgrath, Brendan Nyhan, David G. Rand, Linda J. Skitka, Joshua A. Tucker, Jay J. Van Bavel, Cynthia S. Wang, and James N. Druckman. 2020.

- "Political Sectarianism in America." *Science* 370(6516):533–36. <https://doi.org/10.1126/science.abe1715>
- Fiorina, Morris P., and Samuel J. Abrams. 2008. "Political Polarization in the American Public." *Annual Review of Political Science* 11:563–88. <https://doi.org/10.1146/annurev.polisci.11.053106.153836>
- Fiorina, Morris P., Samuel J. Abrams, and Jeremy C. Pope. 2008. "Polarization in the American Public: Misconceptions and Misreadings." *Journal of Politics* 70(2):556–60. <https://doi.org/10.1017/S002238160808050X>
- Goren, Paul, Christopher M. Federico, and Miki Caul Kittilson. 2009. "Source Cues, Partisan Identities, and Political Value Expression." *American Journal of Political Science* 53(4):805–20. <https://doi.org/10.1111/j.1540-5907.2009.00402.x>
- Hare, Christopher, David A. Armstrong II, Ryan Bakker, Royce Carroll, and Keith T. Poole. 2015. "Using Bayesian Aldrich–McKelvey Scaling to Study Citizens' Ideological Preferences and Perceptions." *American Journal of Political Science* 59(3):759–74. <https://doi.org/10.1111/ajps.12151>
- Hetherington, Marc J. 2001. "Resurgent Mass Partisanship: The Role of Elite Polarization." *American Political Science Review* 95(3):619–31. <https://doi.org/10.1017/S0003055401003045>
- Hetherington, Marc J. 2009. "Putting Polarization in Perspective." *British Journal of Political Science* 39(2):413–48. <https://doi.org/10.1017/S0007123408000501>
- Hunzaker, M. B. Fallin, and Lauren Valentino. 2019. "Mapping Cultural Schemas: From Theory to Method." *American Sociological Review* 84(5):950–81. <https://doi.org/10.1177/0003122419875638>
- Iyengar, Shanto, Yphtach Lelkes, Matthew Levendusky, Neil Malhotra, and Sean J. Westwood. 2019. "The Origins and Consequences of Affective Polarization in the United States." *Annual Review of Political Science* 22:129–46. <https://doi.org/10.1146/annurev-polisci-051117-073034>
- Iyengar, Shanto, Gaurav Sood, and Yphtach Lelkes. 2012. "Affect, Not Ideology: A Social Identity Perspective on Polarization." *Public Opinion Quarterly* 76(3):405–31. <https://doi.org/10.1093/poq/nfs038>
- Kozlowski, Austin C., and James P. Murphy. 2021. "Issue Alignment and Partisanship in the American Public: Revisiting the 'Partisans Without Constraint' Thesis." *Social Science Research* 94:Article 102498. <https://doi.org/10.1016/j.ssresearch.2020.102498>
- Layman, Geoffrey C., Thomas M. Carsey, and Juliana Menasce Horowitz. 2006. "Party Polarization in American Politics: Characteristics, Causes, and Consequences." *Annual Review of Political Science* 9:83–110. <https://doi.org/10.1146/annurev.polisci.9.070204.105138>
- Lee, Amber Hye-Yon. 2022. "Social Trust in Polarized Times: How Perceptions of Political Polarization Affect Americans' Trust in Each Other." *Political Behavior*, 44(3):1533–54. <https://doi.org/10.1007/s11109-022-09787-1>
- Lees, J., and Cikara, M. 2021. "Understanding and Combating Misperceived Polarization." *Philosophical Transactions of the Royal Society B*, 376(1822):Article 20200143. <https://doi.org/10.1098/rstb.2020.0143>
- Lelkes, Yphtach. 2016. "Mass Polarization: Manifestations and Measurements." *Public Opinion Quarterly* 80(S1):392–410. <https://doi.org/10.1093/poq/nfw005>
- Levendusky, Matthew. 2009. *The Partisan Sort: How Liberals Became Democrats and Conservatives Became Republicans*. Chicago: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226473673.001.0001>

- Levendusky, M. S., and Neil Malhotra. 2016. (Mis) perceptions of Partisan Polarization in the American Public. *Public Opinion Quarterly*, 80(S1):378–91. <https://doi.org/10.1093/poq/nfv045>
- Martin, John Levi. 2000. "The Relation of Aggregate Statistics on Belief to Culture and Cognition." *Poetics* 28:5–20. [https://doi.org/10.1016/S0304-422X\(00\)00010-3](https://doi.org/10.1016/S0304-422X(00)00010-3)
- Martin, John Levi. 2002. "Power, Authority, and the Constraint of Belief Systems." *American Journal of Sociology* 107(4):861–904. <https://doi.org/10.1086/343192>
- Mason, Lilliana. 2013. "The Rise of Uncivil Agreement: Issue Versus Behavioral Polarization in the American Electorate." *American Behavioral Scientist* 57(1):140–59. <https://doi.org/10.1177/0002764212463363>
- Mason, Lilliana. 2015. "'I Disrespectfully Agree': The Differential Effects of Partisan Sorting on Social and Issue Polarization." *American Journal of Political Science* 59(1):128–45. <https://doi.org/10.1111/ajps.12089>
- Mason, Lilliana. 2016. "A Cross-Cutting Calm: How Social Sorting Drives Affective Polarization." *Public Opinion Quarterly* 80(S1):351–77. <https://doi.org/10.1093/poq/nfw001>
- McCarty, Nolan, Keith T. Poole, and Howard Rosenthal. 1997. *Polarized America: The Dance of Ideology and Unequal Riches*. Cambridge, MA: MIT Press.
- Mohr, John W. 1998. "Measuring Meaning Structures." *Annual Review of Sociology* 24(1):345–70. <https://doi.org/10.1146/annurev.soc.24.1.345>
- Noel, Hans. 2013. *Political Ideologies and Political Parties in America*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CB09781139814775>
- Oliver, J. Eric, and Thomas J. Wood. 2018. *Enchanted America: How Intuition and Reason Divide Our Politics*. Chicago: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226578644.001.0001>
- Pappi, Franz Urban, Anna-Sophie Kurella, and Thomas Bräuninger. 2021. *Parteienwettbewerb und Wählerverhalten im deutschen Mischwahlssystem*. Wiesbaden: Springer. <https://doi.org/10.1007/978-3-658-32861-0>
- Park, Barum. 2018. "How Are We Apart? Continuity and Change in the Structure of Ideological Disagreement in the American Public, 1980–2012." *Social Forces* 96(4):1757–84. <https://doi.org/10.1093/sf/sox093>
- Rogowski, Jon C., and Joseph L. Sutherland. 2016. "How Ideology Fuels Affective Polarization." *Political Behavior* 38(2):485–508. <https://doi.org/10.1007/s11109-015-9323-7>
- Shafer, Byron E., and Richard Johnston. 2006. *The End of Southern Exceptionalism*. Cambridge, MA: Harvard University Press. <https://doi.org/10.4159/9780674043466>
- Shapiro, Robert Y., and Benjamin Page. 1992. *The Rational Public: Fifty Years of Trends in Americans' Policy Preferences*. Chicago: University of Chicago Press.
- Sniderman, P. M., and Stiglitz, E. H. 2012. *The Reputational Premium: A Theory of Party Identification and Policy Reasoning*. Princeton University Press. <https://doi.org/10.23943/princeton/9780691154145.003.0002>
- Webster, Steven W., and Alan I. Abramowitz. 2017. "The Ideological Foundations of Affective Polarization in the U.S. Electorate." *American Politics Research* 45(4):621–47. <https://doi.org/10.1177/1532673X17703132>
- Wyckoff, Mikel L. 1980. "Belief System Constraint and Policy Voting: A Test of the Unidimensional Consistency Model." *Political Behavior* 2(2):115–46. <https://doi.org/10.1007/BF00989887>
- Zaller, John R. 1992. *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CB09780511818691>



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**Hyunku Kwon:** Department of Sociology, University of Chicago.  
E-mail: [hyunkukwon@uchicago.edu](mailto:hyunkukwon@uchicago.edu).

**John Levi Martin:** Department of Sociology, University of Chicago.  
E-mail: [jlmartin@uchicago.edu](mailto:jlmartin@uchicago.edu).