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### **CROSS-COUNTRY TRENDS IN AFFECTIVE POLARIZATION**

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### ABSTRACT

We measure trends in affective polarization in twelve OECD countries over the past four decades. According to our baseline estimates, the US experienced the largest increase in polarization over this period. Five countries experienced a smaller increase in polarization. Six countries experienced a decrease in polarization. We relate trends in polarization to trends in potential explanatory factors concerning the economy, technology, demography, and politics.

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## **1** Introduction

Affective polarization refers to the extent to which citizens feel more negatively toward other political parties than toward their own (Iyengar et al. 2019). Affective polarization has risen substantially in the US in recent decades (Iyengar et al. 2019). In 1978, according to our calculations, the average partisan rated in-party members 27.4 points higher than out-party members on a "feeling thermometer" ranging from 0 to 100. In 2020 the difference was 56.3, implying an increase of 1.08 standard deviations as measured in the 1978 distribution. Growing affective polarization may have important consequences, including reducing the efficacy of government (Hetherington and Rudolph 2015),<sup>1</sup> increasing the homophily of social groups (Iyengar et al. 2012; Iyengar et al. 2019), and altering economic decisions (Gift and Gift 2015; Iyengar et al. 2019).

Partly due to the difficulty of constructing harmonized data series on partisan affect, there is limited evidence on long-term trends in affective polarization in developed democracies other than the US. Cross-country comparisons can help assess why affective polarization has risen in the US. If affective polarization has risen in countries other than the US, then examining commonalities may suggest promising explanations for the US experience. If affective polarization has not risen elsewhere, then it may be fruitful to examine factors that help distinguish the US from other developed democracies.

In this paper, we present the first cross-country evidence on trends in affective polarization since the 1980s, focusing on twelve OECD countries. In our baseline analysis, we find that the US exhibited the largest increase in affective polarization over this period. In five other countries—Switzerland, France, Denmark, Canada, and New Zealand—polarization also rose, but to a lesser extent. In six other countries—Japan, Australia, Britain, Norway, Sweden, and (West) Germany—polarization fell.

<sup>&</sup>lt;sup>1</sup>See also Kimball et al. (2018). Commentators expressing related concerns include Obama (2010), Blankenhorn (2015), and Drutman (2017). A 2018 survey shows that more than 70 percent of foreign policy opinion leaders consider political polarization a "critical threat" facing the US, ranking it above issues such as foreign nuclear programs (Smeltz et al. 2018).

To conduct our analysis, we constructed a new database from 149 different surveys, many of which we harmonized manually. These data permit a first look at cross-country trends in affective polarization since the 1980s, but they also have important limitations. The set of years with available survey data differs across countries. Question wording and response scales differ across countries and, in some cases, across survey years for a given country. We include information about question wording and scale in our plots, analyze the sensitivity of our findings to an alternative transformation of the response scale, and show direct evidence on the sensitivity of measured affective polarization to survey question wording and response scale. Because the number and nature of political parties differ across countries and within countries over time, even identically structured survey questions may take on different meanings in different contexts. We analyze the sensitivity of our findings to restricting attention to the top two parties in each country and focusing on periods in which this pair of parties is stable.

We also assemble data on trends in economic, technological, demographic, and political factors that may be related to affective polarization. Trends in measures of inequality, openness to trade, penetration of digital media, and the fraction foreign-born are either weakly or negatively associated with trends in affective polarization. Trends in the penetration of private 24-hour news, the non-white share, ethnic fractionalization and polarization, partisan sorting, and elite polarization are positively associated with trends in affective polarization. The association is strongest for the non-white share and elite polarization.

We are not aware of prior work that situates the rise in affective polarization in the US alongside trends in as many as eleven other OECD countries over a roughly four-decade span, and studies the relationship between trends in polarization and trends in potential explanatory factors over that period. Much previous comparative work on affective polarization has been cross-sectional (e.g., Carlin and Love 2018; Westwood et al. 2018; Martini and Torcal 2019) or has relied on data from the Comparative Study of Electoral Systems (CSES) whose data begin in 1996 (e.g., Reiljan 2020; Gidron et al. 2019a, b, 2020; Harteveld 2021; Ward and Tavits 2019; Wagner 2021).<sup>2</sup> There

<sup>&</sup>lt;sup>2</sup>Iyengar et al. (2012) compare how individuals in the US and UK between 1960 and 2010 feel about their children

is also previous comparative work studying dimensions of mass polarization, such as ideological polarization, that may have causes and consequences distinct from those of affective polarization (Iyengar et al. 2019). For example, Draca and Schwarz (2021) analyze data from the World and European Values Surveys from 1989 through 2010 and find that the US experienced the largest increase in ideological polarization among the 17 countries considered.<sup>3</sup>

The remainder of the paper is organized as follows. Section 2 describes our data sources and measure of affective polarization. Section 3 presents our findings on trends in affective polarization. Section 4 presents our findings on the relationship between trends in affective polarization and trends in potential explanatory factors. Section 5 concludes.

# 2 Data and Measure of Affective Polarization

Among members of the OECD as of 1973, there are ten, including the US, for which we are aware of an election study with a partisan affect question prior to 1985. Our sample includes these ten countries, as well as Australia and New Zealand, which we believe make interesting comparisons to the US. Appendix Figure 9 and Appendix Table 1 provide information on data availability for all 1973 OECD members, including those we do not include in our sample. We extract a survey weight associated with each respondent. Appendices A.5 and A.6 detail the survey variables and data sources for each sample country and included survey year.

We extract each respondent's party identification, excluding "leaners" who only choose a party identification in response to a second prompt. We exclude "leaners" from our sample because not all surveys include a second prompt.<sup>4</sup> Appendix Figure 1 depicts trends in the share of respondents

marrying across party lines, and find larger increases in displeasure in the US.

<sup>&</sup>lt;sup>3</sup>Some other studies examine long-term trends in mass polarization in individual countries outside the United States, including Canada (Kevins and Soroka 2018), Germany (Munzert and Bauer 2013), Britain (Adams et al. 2012a, b), and the Netherlands (Adams et al. 2011), but do not report trends in affective polarization.

<sup>&</sup>lt;sup>4</sup>Keith et al. (1992) discuss the interpretation of "leaners."

identifying with a party and the share of affiliates who are affiliated with the top two parties, separately by country.

We extract a measure of each respondent's affect toward the parties in the respondent's country. Questions about affect vary across surveys, commonly asking respondents how they feel toward a given party, how much they like the party, or to what extent they sympathize with the party.<sup>5</sup> Numerical response scales also differ across surveys. We apply an affine transformation to the responses in each survey so that the minimum transformed response is 0 and the maximum transformed response is 100. We refer to the transformed response as the respondent's reported affect toward the given party.

To define affective polarization, fix a given survey and let  $\mathscr{P}$  denote the set of parties toward which respondents are asked their affect. Let  $\mathscr{N}$  denote the set of respondents with non-zero weight who both provide a valid party identification in  $\mathscr{P}$  and report a valid affect toward their own party and at least one other party in  $\mathscr{P}$ .<sup>6</sup> For each respondent  $i \in \mathscr{N}$ , let  $p(i) \in \mathscr{P}$  denote the party with which the respondent identifies and let  $\mathscr{P}_i \subseteq \mathscr{P}$  denote the set of parties toward which the respondent reports a valid affect. Let  $A_i^p \in [0, 100]$  denote the reported affect of respondent i toward party  $p \in \mathscr{P}_i$ . Finally, let  $w_i \ge 0$  denote the survey weight of respondent  $i \in \mathscr{N}$  and let  $W(\mathscr{P}') = \sum_{i \in \mathscr{N}: p(i) \in \mathscr{P}'} w_i$  denote the weighted number of respondents in any set of parties  $\mathscr{P}' \subseteq \mathscr{P}$ , with  $W(\mathscr{P})$  denoting the weighted number of respondents in  $\mathscr{N}$ .

We define the partisan affect  $\pi_i$  of respondent *i* as

$$\pi_{i} = \sum_{p' \in \mathscr{P}_{i} \setminus p(i)} \frac{W(p')}{W(\mathscr{P}_{i}) - W(p(i))} \left(A_{i}^{p(i)} - A_{i}^{p'}\right).$$

Partisan affect  $\pi_i$  reflects the extent to which respondent *i* expresses a more favorable attitude toward her own party than toward other parties.

<sup>&</sup>lt;sup>5</sup>Druckman and Levendusky (2019) study the interpretation of such questions.

<sup>&</sup>lt;sup>6</sup>We iteratively define  $\mathscr{P}$  and  $\mathscr{N}$  after excluding parties with zero affiliates in  $\mathscr{N}$  from  $\mathscr{P}$ .

We define affective polarization  $\Pi$  as the weighted average of respondents' partisan affect:

$$\Pi = \sum_{i \in \mathscr{N}} \frac{w_i}{W(\mathscr{P})} \pi_i.$$

If there are two parties and all respondents state their affect toward both, then affective polarization  $\Pi$  is the difference between weighted mean own-party affect and weighted mean other-party affect, as in Iyengar et al. (2019).<sup>7</sup> In the multi-party case, our definition is similar to ones adopted by Gidron et al. (2019b, 2020, equations 1 and 2), Reiljan (2020, equation 3), and Harteveld (2021, equation 1).<sup>8</sup>

We obtain data on various potential explanatory variables at the level of the country and year from a range of sources that are detailed in Appendix A.7. We try to collect variables that can be measured reasonably well across different countries and years, and that have been linked in the literature to the rise in affective polarization. Though not exhaustive, we believe that the variables we collect reflect many of the important factors that meet these criteria.

# **3** Comparison of Trends in Affective Polarization

Figure 1 shows the time path of affective polarization in each of the twelve countries that we study. Plot markers indicate the response scaling in the original survey question. The depicted intervals constitute a uniform 95 percent confidence band for affective polarization, computed following Montiel Olea and Plagborg-Møller (2019).

Each plot depicts an estimated linear time trend and reports its slope. For no country does the

<sup>7</sup>In this case:

$$\Pi = \sum_{i \in \mathscr{N}} \frac{w_i}{W\left(\mathscr{P}\right)} A_i^{p(i)} - \sum_{i \in \mathscr{N}} \frac{w_i}{W\left(\mathscr{P}\right)} A_i^{\mathscr{P} \setminus p(i)}.$$

<sup>&</sup>lt;sup>8</sup>See also Wagner (2021, section 4.1).

uniform confidence band contain the linear fit, indicating that the linear fit should be taken only as a convenient summary of the average change, not as a complete description of the dynamics of the series.<sup>9</sup> Each plot also reports the 95 percent confidence interval for the slope of the linear trend, computed following Imbens and Kolesár (2016). Although these intervals and associated p-values are designed for small-sample settings (using an adjustment from Bell and McCaffrey 2002), we nevertheless suggest interpreting statements of statistical significance regarding the linear trends with caution, especially for countries with relatively few survey years.

Consistent with the existing evidence (e.g., Iyengar et al. 2019), Figure 1 shows that affective polarization grew rapidly in the US over the sample period. The estimated linear trend is 5.6 points per decade (p-value < 0.001). For comparison, the standard deviation in partian affect in the base period of 1978 was 26.7.

Five other countries—Switzerland, France, Denmark, Canada, and New Zealand—exhibit a smaller positive trend. The trend is statistically significant for Denmark. Switzerland's is the largest trend of the five, with a slope of 5.1 points per decade (p-value = 0.090). Panel A of Table 1 shows that we can reject the (pairwise) equality of linear trends between the US and each of the five other countries with a positive trend, except Switzerland.

The remaining six countries—Japan, Australia, Britain, Norway, Sweden, and Germany—exhibit a negative linear trend, which is statistically significant for Sweden and Germany. Germany exhibits the largest negative trend, equal to 3.7 points per decade (p-value < 0.001), which can be compared to a standard deviation in partisan affect in the base period of 1977 of 25.4. Panel A of Table 1 shows that we can reject the (pairwise) equality of trends between the US and each of the six countries with a negative linear trend.

Appendix Figure 2 breaks down the trends in affective polarization into affect toward the respondent's own party and affect toward other parties. Consistent with an existing literature on

<sup>&</sup>lt;sup>9</sup>Some countries appear to exhibit cyclicality in affective polarization. In some of these countries (e.g., Britain), the surveys we rely on coincide with elections, suggesting that election years themselves are not the source of the apparent cyclicality.

negative partisanship (e.g., Abramowitz and Webster 2018), affect towards other parties decreased at a rate of 6.2 points per decade (p-value < 0.001) in the US, a more negative linear trend than in any other country in our sample.

Panel C of Table 1 shows estimated linear trends separately for the periods before and after 2000. After 2000, all countries except Britain and Germany exhibit a positive linear trend, with the US having the largest estimated trend among all sample countries. We can reject the (pairwise) equality of post-2000 linear trends between the US and Australia, Norway, and Germany.

Figure 2 shows the time path of affective polarization when restricting attention to the two largest parties in each survey round and to a set of surveys with the same two largest parties. The estimated trend changes sign for Canada and Japan. In this specification Japan exhibits a large, positive linear trend, more positive than that for the US, though estimated using only three surveys.

Our baseline sample excludes "leaners" who provide a party affiliation only when prompted a second time. Recall that we exclude this group from our main sample because not all surveys include a second prompt. For those countries where it is feasible, Appendix Figure 3 shows the time path of affective polarization when including "leaners." In this exercise, the US remains the country with the largest linear trend. Appendix Figure 4 shows the time path of affective polarization when assigning party affiliation based on the party toward which the respondent reports the most positive affect. In this exercise, the US and Switzerland are tied (at reporting precision) for the largest linear trend.

Our baseline estimates of affective polarization also depend on an affine transformation of responses into a common scale. Appendix Figure 5 shows the time path of affective polarization when we coarsen reported affect to a five-point scale so that surveys do not differ in the fineness of the affect scale. In this specification the linear trend is more positive for Switzerland than for the US. Appendix Figure 6 compares the time path of affective polarization in the US measured from the survey question we use in our main analysis with the time path of affective polarization measured from an alternative survey question with a different response scale asked in a subset

of survey years. The estimated trends differ by 1.2 points per decade (SE = 0.7), which can be compared to a baseline trend of 6.4 points per decade. Appendix Figure 7 compares measured affective polarization between our data sources and those in the CSES.

Panel B of Table 1 reports the estimated trends and confidence intervals for the sensitivity analyses in Appendix Figures 3–5.

## 4 Comparison of Trends in Potential Explanatory Factors

Figure 3 presents evidence on trends in potential explanatory factors. Each panel corresponds to a different group of variables. Each plot within a panel corresponds to a different variable. Each plot is a scatterplot where the y-axis is the estimated linear trend in affective polarization, the x-axis is the estimated linear trend in the explanatory variable, and an observation is a country. Each plot also reports the Spearman rank correlation between the two trends and the p-value from a permutation test of the statistical significance of the rank correlation.

Each plot includes two lines through the scattered points: one is the line of best fit, and the other is a benchmark line that passes through both the origin and the point corresponding to the US. In a homogeneous, linear model with a single systematic explanatory variable, these two lines coincide when the given explanatory variable fully explains the increase in affective polarization in the US.<sup>10</sup> Across the explanatory variables we consider, those whose trends exhibit a larger rank correlation with the trend in affective polarization tend also to exhibit a closer match between the line of best fit and the benchmark line. Appendix Figure 8 plots the individual series for each of the explanatory variables that we consider.

<sup>&</sup>lt;sup>10</sup>Let  $\Delta \Pi_c$  be the change in affective polarization in country  $c \in \{1, ..., C\}$  and let  $\Delta x_c$  be the change in the given explanatory variable. If  $E(\Delta \Pi_c | \Delta x_c) = \beta \Delta x_c$  then we may say that the given variable fully explains the change in polarization in country  $c^*$  if  $\beta \Delta x_{c^*} = \Delta \Pi_{c^*}$ . The benchmark line has a slope given by  $\hat{\beta}^* = \Delta \hat{\Pi}_{c^*} / \Delta \hat{x}_{c^*}$  where  $c^*$  is the US and  $\Delta \hat{\Pi}_{c^*}$  and  $\Delta \hat{x}_{c^*}$  denote the estimated linear trends in affective polarization and the explanatory variable, respectively.

Panel A of Figure 3 considers economic variables. A number of authors (e.g., Payne 2017; Pearlstein 2018) have linked polarization in the US to growing inequality and other related economic changes. Both the Gini coefficient and the trade share of GDP exhibit a positive linear trend in most sample countries. The linear trend in the Gini coefficient has a negative and statistically insignificant rank correlation with the linear trend in affective polarization. The linear trend in the trade share of GDP has a very small, positive, and statistically insignificant rank correlation with the linear trend in statistically insignificant rank correlation.

Panel B of Figure 3 considers technological and media-related variables. A number of authors (e.g., Lelkes et al. 2017; Sunstein 2017; Settle 2018) have linked polarization in the US to the rise of digital media. Accordingly, the first pair of variables we consider in this category are internet penetration and the share of individuals getting news online. These variables exhibit a positive linear trend in all sample countries with available data. There is no evidence of a positive rank correlation between the linear trend in either variable and the linear trend in affective polarization.<sup>11</sup>

Some authors (e.g., Duca and Saving 2017; Martin and Yurukoglu 2017) have linked the growth in polarization to the rise of partisan cable news networks in the US.<sup>12</sup> Accordingly, the second pair of media-related variables we consider are the penetration and number of 24-hour private television news networks. These variables exhibit a positive linear trend in all sample countries with available data. The linear trend in each variable has a positive, but statistically insignificant, rank correlation with the linear trend in affective polarization.

Panel C of Figure 3 considers four variables measuring demographic changes: the share foreignborn, the share non-white, ethnic fractionalization, and ethnic polarization. Many authors (e.g., Mason 2016, 2018; Valentino and Zhirkov 2018; Abramowitz 2018; Mason and Wronski 2018; Westwood and Peterson 2020) have suggested connections between affective polarization and

<sup>&</sup>lt;sup>11</sup>There is also no evidence of a positive rank correlation between the linear trend in internet penetration during the post-2000 period and the linear trend in affective polarization during the post-2000 period estimated in Table 1 (rank correlation = -0.08, rank correlation p-value = 0.80).

<sup>&</sup>lt;sup>12</sup>But see also, e.g., Arceneaux and Johnson (2013).

racial and other social divisions.<sup>13</sup> The share foreign-born and the share non-white each exhibit a non-negative linear trend in all sample countries with available data. Ethnic fractionalization and ethnic polarization exhibit a positive linear trend in most sample countries. The linear trend in the share foreign born has a negative and statistically insignificant rank correlation with the linear trend in affective polarization. The linear trend in the share nonwhite has a positive rank correlation with the linear trends in ethnic fractionalization and ethnic polarization, with an associated p-value of 0.052. The linear trends in ethnic fractionalization and ethnic polarization have positive and statistically insignificant rank correlations with the linear trends in ethnic fractionalization and ethnic polarization have positive and statistically insignificant rank correlations with the linear trend in affective polarization.

Panel D of Figure 3 considers political variables. The first of these measures the extent to which a person's party affiliation aligns with the person's position on a left-right ideological spectrum. There is evidence of growing partisan-ideological sorting in the US in recent decades (e.g., Fiorina and Abrams 2008; Levendusky 2009; Fiorina 2016, 2017), and this may have influenced the growth in affective polarization (e.g., Webster and Abramowitz 2017; Lelkes 2018; Orr and Huber 2020).<sup>14</sup> Partisan sorting exhibits a positive linear trend in most sample countries. The linear trend in partisan sorting has a positive and statistically insignificant rank correlation with the linear trend in affective polarization.

The second political variable that we consider measures polarization among the political parties themselves, rather than among their citizen members. Elite polarization increased in the US over the period we study (e.g., McCarty et al. 2006) and changes in elite polarization may influence affective polarization (e.g., Banda and Cluverius 2018).<sup>15</sup> Elite polarization exhibits a negative

<sup>&</sup>lt;sup>13</sup>See also Craig et al. (2018), Bertrand and Kamenica (2018), and Desmet and Wacziarg (2021).

<sup>&</sup>lt;sup>14</sup>Harteveld (2021) studies the relationship between affective polarization and measures of sorting in a panel of countries drawn from the CSES. See also Fiorina (2017, Chapter 8) for a discussion of cross-country differences in sorting, and see Kevins and Soroka (2018) and Adams et al. (2012a) for studies on partian sorting in Canada and Britain respectively.

<sup>&</sup>lt;sup>15</sup>See also Rehm and Reilly (2010). Elite polarization may of course be influenced by affective polarization as well as the reverse. Within the US, some aspects of the growth in elite polarization, such as the realignment of the parties in the South following the civil rights era, seem to originate at least in part in the strategic choices of political elites

linear trend in most sample countries. The linear trend in elite polarization has a positive and statistically significant rank correlation with the linear trend in affective polarization.

### 5 Conclusion

Our paper makes two main contributions. The first is to situate the rapid rise in affective polarization in the US over the preceding four decades in an international context. According to our baseline estimates, the US experienced the most rapid growth in affective polarization over this period among the twelve OECD countries we consider, with five other countries experiencing smaller increases in polarization, and six experiencing declines in polarization.

The second main contribution is to examine the relationship between trends in affective polarization and trends in a set of potential explanatory variables. In some cases (e.g., the non-white share of the population and elite polarization), there is evidence of a positive association between the trend in the explanatory variable and the trend in affective polarization; in other cases (e.g., inequality, the trade share of GDP, and internet penetration), there is not.

Our study has several important limitations. Differences in survey format, political systems, and other factors make cross-country comparisons of affective polarization challenging. Well-known limitations of cross-country data (e.g., Mankiw 1995) make it difficult to reach firm conclusions about the causal role of different explanatory factors. And though we have attempted to measure variables that capture many of the most prominent explanations for the rise in affective polarization in the US, we have not measured all of them. For example, an existing literature relates mass polarization to the extent to which a person's political party is aligned with other aspects of the person's identity, such as their race or religion (Mason, 2016, 2018; Mason and Wronski 2018). Measuring this type of social sorting in a comparable way across countries, and relating

rather than the shifting views of voters themselves (Fiorina and Abrams 2008, p. 581; Levendusky 2009, 2010; Lupu 2015; Banda and Cluverius 2018). Regarding the Southern realignment, see Black and Black (2002), Valentino and Sears (2005), and Kuziemko and Washington (2018).

trends in social sorting to the trends in affective polarization that we have documented here, seems an interesting direction for future work.

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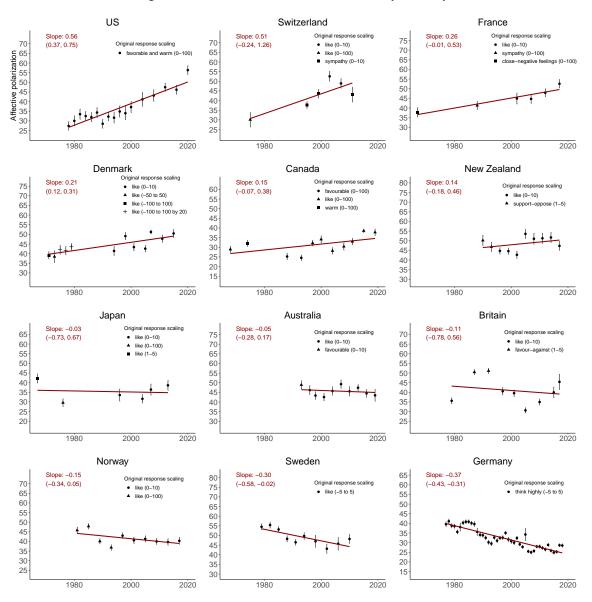


Figure 1: Trends in Affective Polarization by Country

Note: The plot shows our estimates of affective polarization  $\Pi$  as defined in Section 2. In each plot, one point represents one survey. The red line displays a fitted bivariate linear regression line with affective polarization as the dependent variable and survey year as the independent variable. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval computed following Imbens and Kolesár (2016). The error bars display a 95% uniform confidence band for affective polarization in the given country, constructed following the plug-in sup-t method described in Montiel Olea and Plagborg-Møller (2019), under the assumption that estimates are independent across surveys. These calculations use 1000 simulation draws and estimate the standard error of affective polarization in a given survey as

$$\sqrt{\sum_{i\in\mathscr{N}} \left(\frac{w_i}{W(\mathscr{P})}\right)^2 (\pi_i - \Pi)^2}.$$

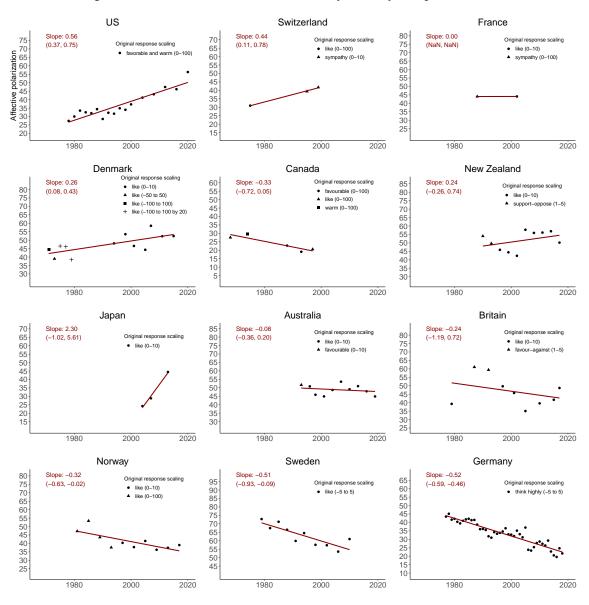
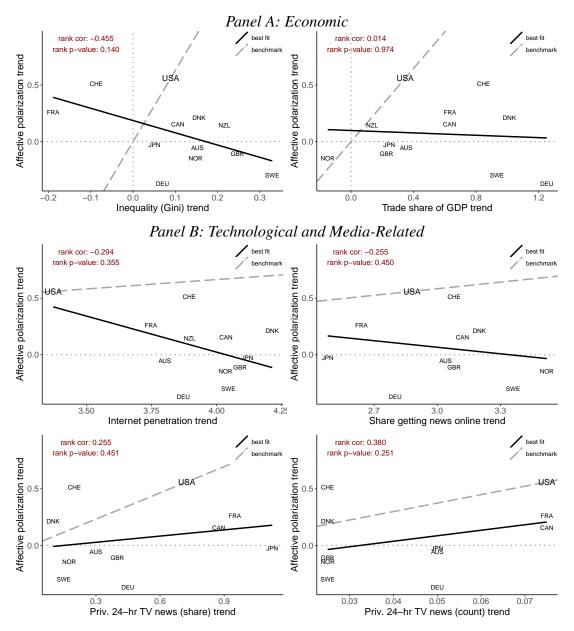


Figure 2: Trends in Affective Polarization by Country - Top Two Parties

Note: The plot shows our estimates of affective polarization  $\Pi$  as defined in Section 2. In each survey, we restrict the universe of parties  $\mathscr{P}$  to the two parties p with the largest weighted number of respondents W(p) identifying with that party. We plot only those surveys in which the set of top two parties coincides with the modal set across all survey years for the given country. In each plot, one point represents one survey. The red line displays a fitted bivariate linear regression line with affective polarization as the dependent variable and survey year as the independent variable. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval computed following Imbens and Kolesár (2016).





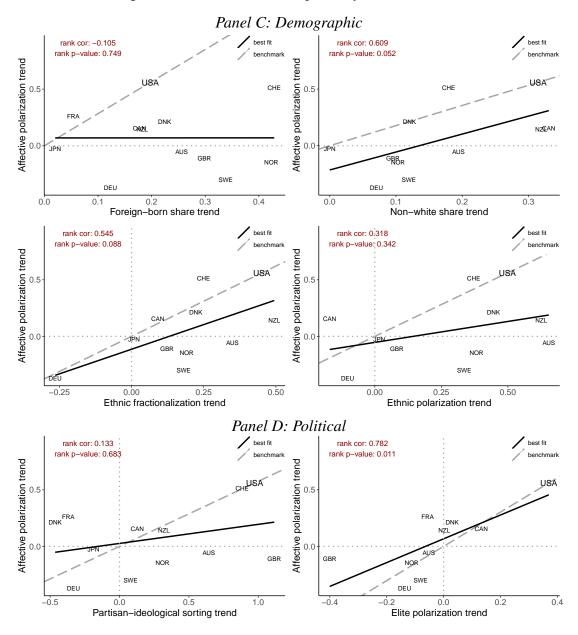


Figure 3: Trends in Potential Explanatory Variables (cont.)

Note: Each plot is a scatterplot. The y-axis variable is the estimated linear trend in affective polarization reported in Figure 1. The x-axis variable is the estimated linear trend in the explanatory variable reported in Appendix Figure 8, subject to the sample restrictions detailed there. The rank correlation is the Spearman rank correlation between the y-axis and x-axis variables. The rank p-value is for a test of the hypothesis that the rank of the linear slope of affective polarization is independent of the rank of the linear slope of the explanatory variable. The test statistic is the Spearman rank correlation and the p-value is computed via permutation, except in the case of exact ties in the ranks when we use the AS89 approximation (Best and Roberts 1975). The "best fit" line is the line of best least-squares fit to the scatterplot. The "benchmark" line is the line that passes through the origin and the point corresponding to the US. See Appendix Figure 8 for plots of the available data for each country and explanatory variable and Appendix A.7 for additional details on data sources and construction.

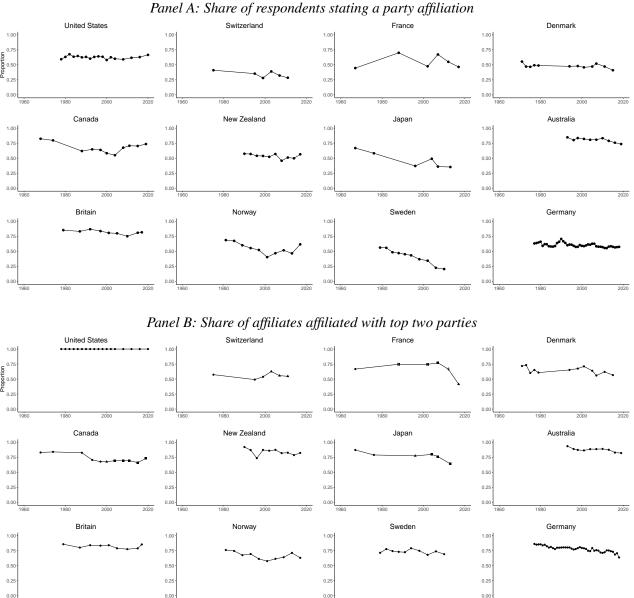
|  | United States                 | Switzerland               | France                    | Denmark                   | Canada                     | New Zealand                | Japan                      | Australia                   | Britain                    | Norway                      | Sweden                       | Germany                     |
|--|-------------------------------|---------------------------|---------------------------|---------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|------------------------------|-----------------------------|
|  | Panel A: Baseline             |                           |                           |                           |                            |                            |                            |                             |                            |                             |                              |                             |
| Baseline                                 | 0.56 [17]                     | 0.51 [6]                  | 0.26 [6]                  | 0.21 [12]                 | 0.15 [11]                  | 0.14 [10]                  | -0.03 [6]                  | -0.05 [10]                  | -0.11 [9]                  | -0.15 [10]                  | -0.30 [10]                   | -0.37 [42]                  |
|  | (0.37, 0.75)                  | (-0.24, 1.26)             | (-0.01, 0.53)             | (0.12, 0.31)              | (-0.07, 0.38)              | (-0.18, 0.46)              | (-0.73, 0.67)              | (-0.28, 0.17)               | (-0.78, 0.56)              | (-0.34, 0.05)               | (-0.58, -0.02)               | (-0.43, -0.31               |
| Test of eq. w/ US<br>Test of eq. w/ zero | 1.000<br>0.000                | 0.783<br>0.090            | 0.032<br>0.055            | 0.002<br>0.001            | 0.005<br>0.126             | 0.023<br>0.291             | 0.029<br>0.896             | 0.001<br>0.541              | 0.028<br>0.665             | 0.000<br>0.111              | 0.000<br>0.041               | $0.000 \\ 0.000$            |
|  | Panel B: Sensitivity analysis |                           |                           |                           |                            |                            |                            |                             |                            |                             |                              |                             |
| Top two parties                          | 0.56 [17]                     | 0.44 [3]                  | 0.00 [2]                  | 0.26 [12]                 | -0.33 [5]                  | 0.24 [10]                  | 2.30 [3]                   | -0.08 [10]                  | -0.24 [9]                  | -0.32 [10]                  | -0.51 [10]                   | -0.52 [42]                  |
|  | (0.37, 0.75)                  | (0.11, 0.78)              | (,)                       | (0.08, 0.43)              | (-0.72, 0.05)              | (-0.26, 0.74)              | (-1.02, 5.61)              | (-0.36, 0.20)               | (-1.19, 0.72)              | (-0.63, -0.02)              | (-0.93, -0.09)               | (-0.59, -0.46               |
| Including leaners                        | 0.51 [17]                     | 0.38 [5]                  | 0.44 [4]                  | 0.15 [12]                 | 0.00 [8]                   | 0.13 [9]                   | -0.11 [6]                  | []                          | -0.10 [9]                  | []                          | -0.37 [10]                   | []                          |
|  | (0.28, 0.73)                  | (-1.42, 2.18)             | (-0.79, 1.67)             | (0.05, 0.26)              | (-0.20, 0.20)              | (-0.13, 0.38)              | (-0.80, 0.57)              | (,)                         | (-0.75, 0.55)              | (,)                         | (-0.62, -0.12)               | (,)                         |
| Favorite party                           | 0.47 [17]                     | 0.47 [6]                  | 0.26 [6]                  | 0.18 [12]                 | 0.12 [11]                  | 0.17 [10]                  | -0.12 [6]                  | -0.15 [10]                  | -0.04 [9]                  | -0.11 [10]                  | -0.28 [10]                   | -0.17 [42]                  |
|  | (0.25, 0.69)                  | (-0.16, 1.10)             | (0.02, 0.50)              | (0.08, 0.27)              | (-0.09, 0.33)              | (-0.07, 0.40)              | (-0.88, 0.63)              | (-0.35, 0.05)               | (-0.57, 0.49)              | (-0.28, 0.05)               | (-0.55, -0.01)               | (-0.22, -0.12               |
| Coarsening                               | 0.53 [17]<br>(0.35, 0.72)     | 0.57 [6]<br>(-0.24, 1.37) | 0.34 [6]<br>(-0.03, 0.71) | 0.20 [12]<br>(0.09, 0.32) | 0.13 [11]<br>(-0.14, 0.39) | 0.19 [10]<br>(-0.12, 0.49) | -0.01 [6]<br>(-0.76, 0.74) | -0.06 [10]<br>(-0.28, 0.16) | -0.11 [9]<br>(-0.77, 0.55) | -0.19 [10]<br>(-0.38, 0.01) | -0.29 [10]<br>(-0.55, -0.03) | -0.39 [42]<br>(-0.46, -0.32 |
|  | Panel C: Time periods         |                           |                           |                           |                            |                            |                            |                             |                            |                             |                              |                             |
| Pre-2000                                 | 0.28 [12]                     | 0.68 [3]                  | 0.15 [2]                  | 0.17 [7]                  | -0.01 [6]                  | -0.27 [4]                  | -0.23 [3]                  | -0.47 [3]                   | -0.20 [4]                  | -0.30 [5]                   | -0.53 [7]                    | -0.46 [24]                  |
|  | (0.10, 0.45)                  | (-1.26, 2.62)             | (-0.10, 0.40)             | (-0.06, 0.40)             | (-0.39, 0.36)              | (-1.61, 1.08)              | (-1.03, 0.57)              | (-1.86, 0.91)               | (-2.75, 2.35)              | (-0.67, 0.07)               | (-0.80, -0.26)               | (-0.57, -0.35               |
| Post-2000                                | 0.93 [5]                      | 0.04 [3]                  | 0.51 [4]                  | 0.34 [5]                  | 0.47 [5]                   | 0.34 [6]                   | 0.66 [3]                   | 0.05 [7]                    | -0.01 [5]                  | 0.04 [5]                    | 0.34 [3]                     | -0.24 [18]                  |
|  | (0.52, 1.33)                  | (-2.39, 2.47)             | (-0.02, 1.04)             | (-0.29, 0.96)             | (-0.05, 1.00)              | (-0.45, 1.14)              | (-1.04, 2.35)              | (-0.35, 0.46)               | (-1.16, 1.15)              | (-0.34, 0.41)               | (-0.42, 1.11)                | (-0.39, -0.09               |
| Test of eq. w/ US (post)                 | 1.000                         | 0.253                     | 0.107                     | 0.056                     | 0.090                      | 0.106                      | 0.482                      | 0.003                       | 0.061                      | 0.003                       | 0.101                        | 0.000                       |
| Test of eq. w/ zero (post)               | 0.003                         | 0.950                     | 0.055                     | 0.180                     | 0.065                      | 0.287                      | 0.183                      | 0.731                       | 0.989                      | 0.776                       | 0.219                        | 0.003                       |
| Test of eq. (pre vs post)                | 0.011                         | 0.495                     | 0.159                     | 0.577                     | 0.132                      | 0.385                      | 0.200                      | 0.350                       | 0.850                      | 0.181                       | 0.045                        | 0.051                       |

Table 1: Trends in Affective Polarization

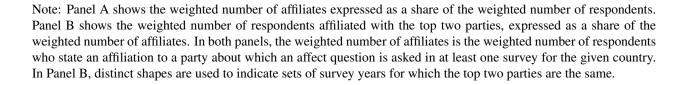
Note: The table reports the estimated slope of a fitted bivariate linear regression line with affective polarization  $\Pi$  (as defined in Section 2) as the dependent variable and survey years as the independent variable. Adjacent to the slope, the table reports the number of survey years in brackets. Below the estimated slope, the table reports a 95 percent confidence interval for the slope. 'Baseline' reports estimates from our main specification as in Figure 1. 'Top two parties' reports estimates after restricting the universe of parties  $\mathcal{P}$  to the two parties p with the largest weighted number of respondents W(p) identifying with that party and restricting to surveys in which the set of top two parties coincides with the modal set across all years for the given country as in Figure 2. 'Including leaners' reports estimates after including respondents who only choose a party identification in response to a second survey prompt and restricting to countries that have such a survey in at least two years as in Appendix Figure 3. 'Favorite party' reports estimates after coarsening reported affect  $A_i^p$  to a five-point scale by rounding to the nearest multiple of 25 as in Appendix Figure 5. 'Pre-2000' and 'Post-2000' are the respective estimated linear trends when we impose a linear spline with a knot at 2000. The last two rows of Panel A report the *p*-values from tests of whether the post-2000 slope for a given country is equal to the post-2000 slope in the US and zero, respectively. The penultimate two rows of Panel C report the *p*-values from tests of whether the post-2000 slopes are the same in a given country. Confidence intervals and p-values are computed following Imbens and Kolesár (2016).

# A Appendix for Online Publication

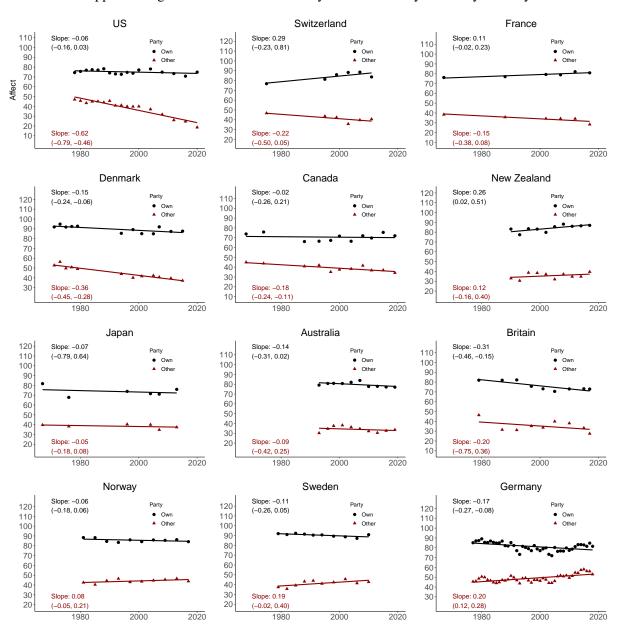
## A.1 Trends in Party Affiliation



Appendix Figure 1: Trends in Party Affiliation



### A.2 Sensitivity Analysis

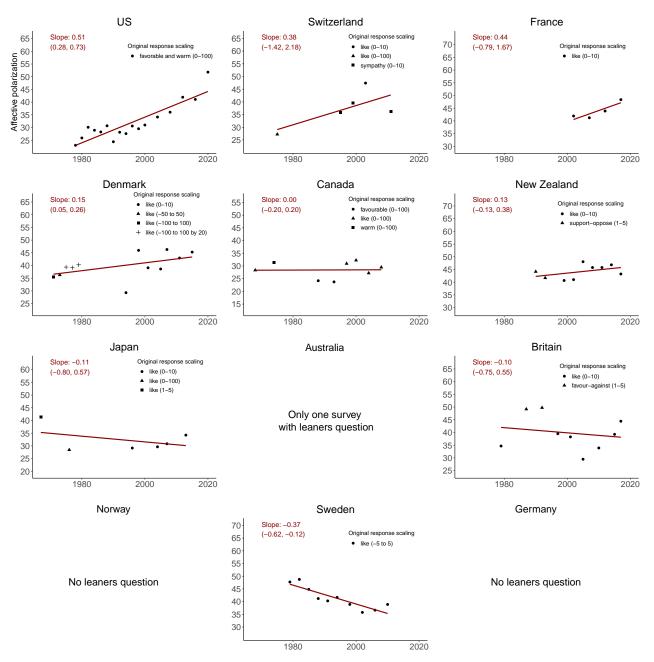


#### Appendix Figure 2: Trends in Own-Party and Other-Party Affect by Country

Note: The plot decomposes affective polarization  $\Pi$  into own-party affect (black circles) and other-party affect (red triangles). Following the notation in Section 2, own-party affect is defined as the weighted average of  $A_i^{p(i)}$ , whereas other-party affect is defined as the weighted average of

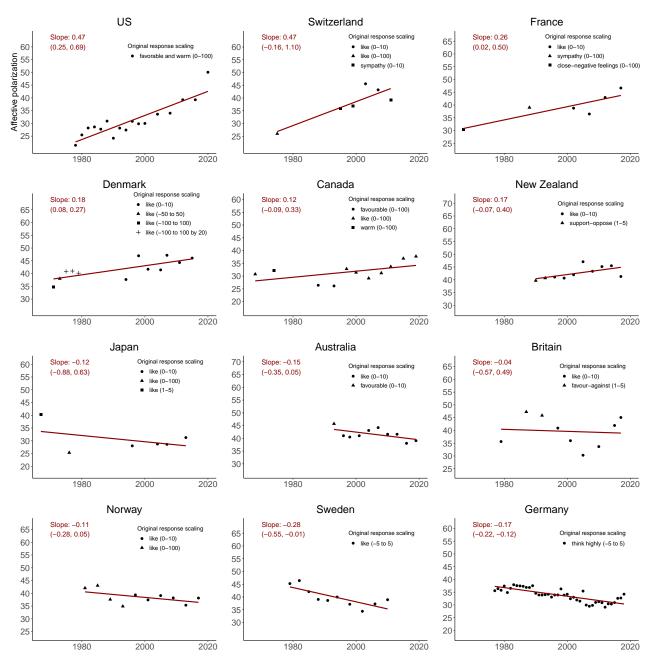
$$\sum_{p' \in \mathscr{P}_i \setminus p(i)} \frac{W(p')}{W(\mathscr{P}_i) - W(p(i))} A_i^{p'}$$

Thus, affective polarization  $\Pi$  is equal to the difference between own-party affect and other-party affect. In each plot, one point represents one survey. The solid lines display fitted bivariate linear regression lines with affect as the dependent variable and survey year as the independent variable. Each plot reports the estimated slopes (change per year) and the corresponding 95 percent confidence intervals computed following Imbens and Kolesár (2016).



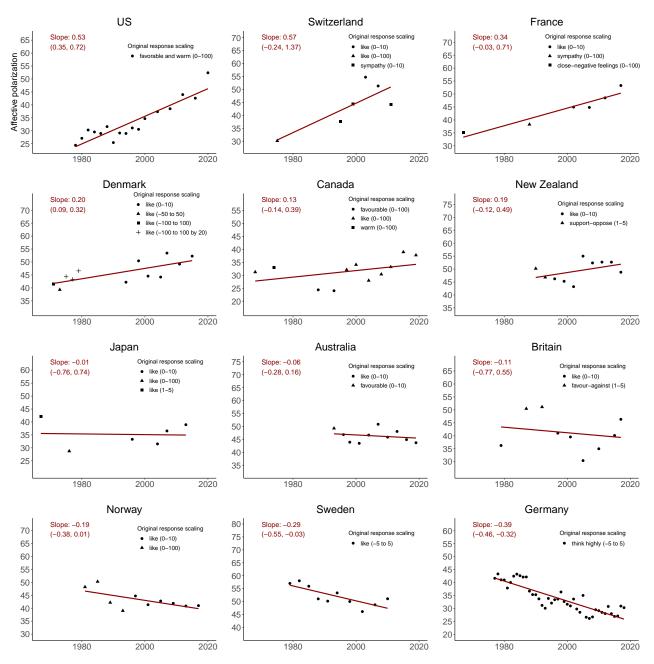
### Appendix Figure 3: Trends in Affective Polarization by Country - Including Leaners

Note: The plot shows estimates of affective polarization  $\Pi$  as defined in Section 2. In contrast to our baseline estimates, we include leaners in the sample. Leaners are respondents who only choose a party identification in response to a second survey prompt. We include only surveys that have a second prompt, and only countries that have such a survey in at least two years. In each plot, one point represents one survey. The red line displays a fitted bivariate linear regression line with affective polarization as the dependent variable and survey year as the independent variable. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval following Imbens and Kolesár (2016).



### Appendix Figure 4: Trends in Affective Polarization by Country - Favorite Party

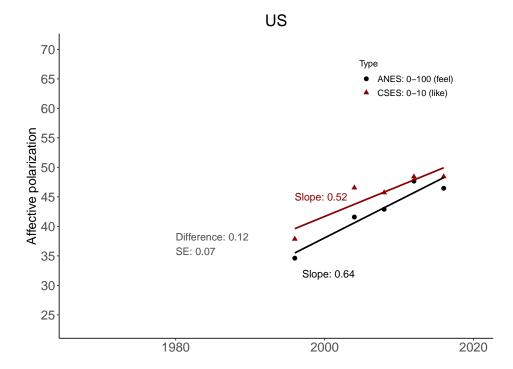
Note: The plot shows estimates of affective polarization  $\Pi$  as defined in Section 2. In contrast to our baseline estimates, we assume that each respondent *i* is affiliated to the party *p* toward which the respondent expresses the most positive affect  $A_i^p$ , breaking ties at random. In each plot, one point represents one survey. The red line displays a fitted bivariate linear regression line with affective polarization as the dependent variable and survey year as the independent variable. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval computed following Imbens and Kolesár (2016).



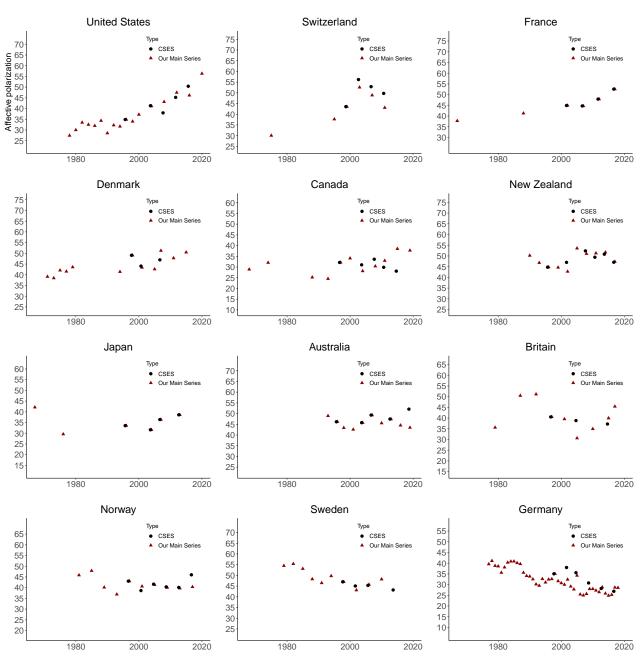
Appendix Figure 5: Trends in Affective Polarization by Country - Coarsening Reported Affect

Note: The plot shows estimates of affective polarization  $\Pi$  as defined in Section 2. In contrast to our baseline estimates, we coarsen reported affect  $A_i^p$  to a five-point scale by rounding to the nearest multiple of 25. In each plot, one point represents one survey. The red line displays a fitted bivariate linear regression line with affective polarization as the dependent variable and survey year as the independent variable. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval computed following Imbens and Kolesár (2016).

Appendix Figure 6: Trends in Affective Polarization in the US—Comparison of Alternative Response Coding and Question Wording



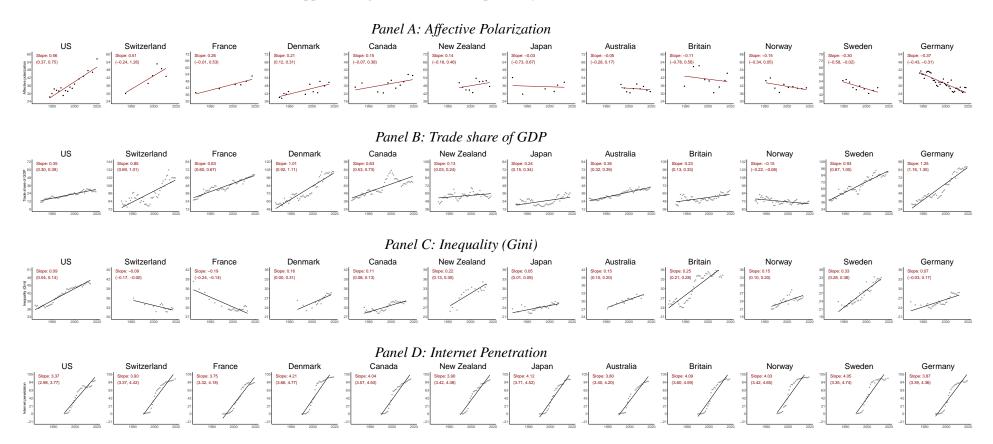
Note: The plot shows estimates of affective polarization Π as defined in Section 2 across two different series constructed from the ANES survey conducted in the US. The black line with circle markers uses the main ANES feeling thermometer asked in the pre-election wave of the study and which we use in our main estimates in Figure 1. The red line with triangle markers uses the post-election CSES module in the ANES survey that uses a 0-10 scale and alternative question wording. For example, in 2004, the CSES module asked, "I'd like to know what you think about each of our political parties. After I read the name of a political party, please rate it on a scale from 0 to 10, where 0 means you strongly dislike that party and 10 means that you strongly like that party. If I come to a party you haven't heard of or you feel you do not know enough about, just say so." Party affiliation is defined using the main ANES pre-election party identification variable. We use survey weights and restrict the sample to respondents with non-missing affect for both series. We use the 1996, 2004, 2008, 2012, and 2016 Time Series versions of the ANES data for this figure. Each line displays a bivariate linear regression line, fit to the respective series, with affective polarization as the dependent variable and survey year as the independent variable. The difference between the two slopes is reported in grey to the left of the two series, with standard error calculated via a nonparametric bootstrap with 500 replicates, stratified by survey year.



### Appendix Figure 7: Comparing Measured Trends to CSES

Note: The plot shows our estimates of affective polarization  $\Pi$  as defined in Section 2 for our main series as well as for data from the Comparative Study of Electoral Systems (CSES). In some cases, our main series uses the CSES data directly: Switzerland (2003), France (post-2000), and Japan (post-1990). In other cases, our main data provider and the CSES are often collaborators using the same sample of respondents. In each plot, one point represents one survey. We normalize the level of the CSES series so that the first CSES survey aligns with the level of the corresponding (or preceeding) year in our main series. The CSES series is shifted left by 1/3 years for ease of visualization, and we restrict the CSES data to West Germany for consistency with our main series.

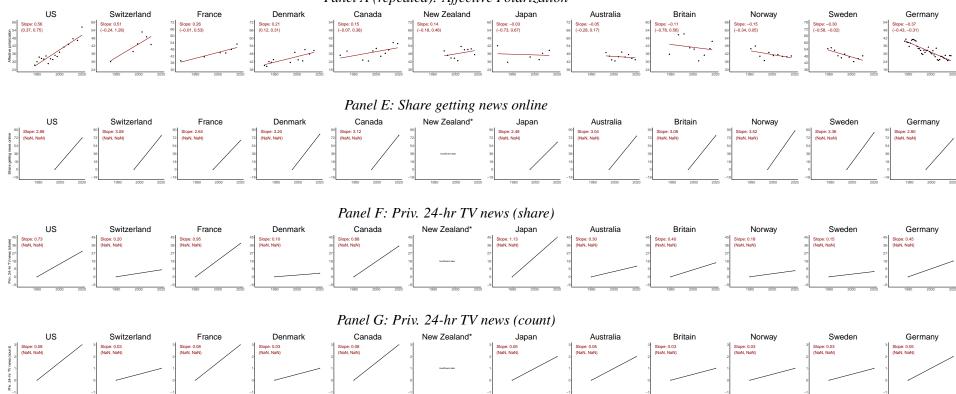
### A.3 Plots of Potential Explanatory Factors



Appendix Figure 8: Potential Explanatory Factors – Plots

Note: Countries are sorted from left to right in descending order of the estimated linear time trend of affective polarization. Panel A plots the measure of affective polarization along with the estimated linear time trend for each country; Panel B plots the trade share of GDP in each country; Panel C plots the Gini coefficient for each country; and Panel D plots the share of households with internet access in each country. See Appendix A.7 for additional details on data sources and construction. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval computed following Imbens and Kolesár (2016). Plots with an asterisk after the country name indicate the countries excluded from the computations in Figure 3 for each respective variable.

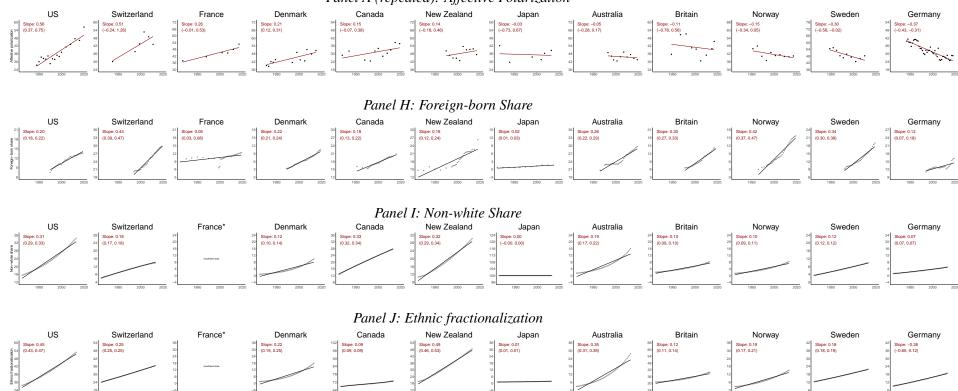
### Appendix Figure 8: Potential Explanatory Factors – Plots, cont.



#### Panel A (repeated): Affective Polarization

Note: Countries are sorted from left to right in descending order of the estimated linear time trend of affective polarization. Panel A plots the measure of affective polarization along with the estimated linear time trend for each country; Panel E plots the share of respondents getting news online; Panel F plots the reach of the largest private 24-hour TV news network in each country; and Panel G plots the number of 24-hour TV news networks indicated in the Reuters Institute Digital News Report 2020. See Appendix A.7 for additional details on data sources and construction. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval computed following Imbens and Kolesár (2016). Plots with an asterisk after the country name indicate the countries excluded from the computations in Figure 3 for each respective variable.

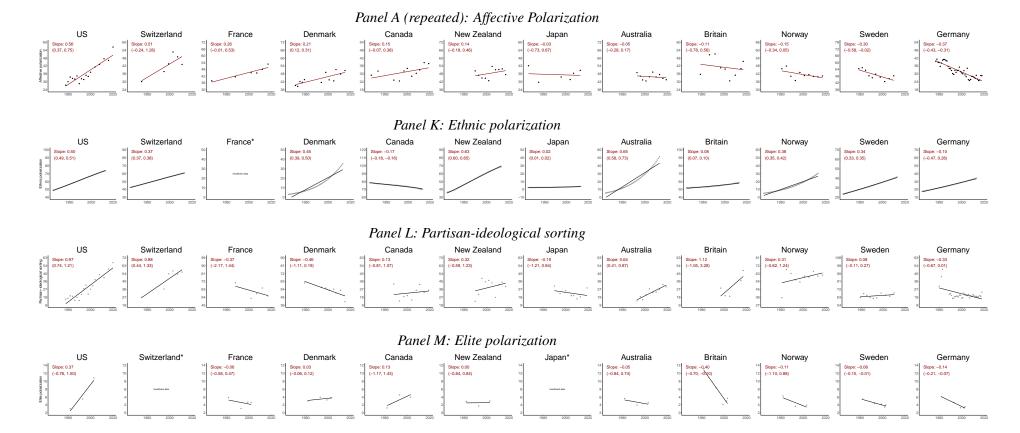
Appendix Figure 8: Potential Explanatory Factors – Plots, cont.



Panel A (repeated): Affective Polarization

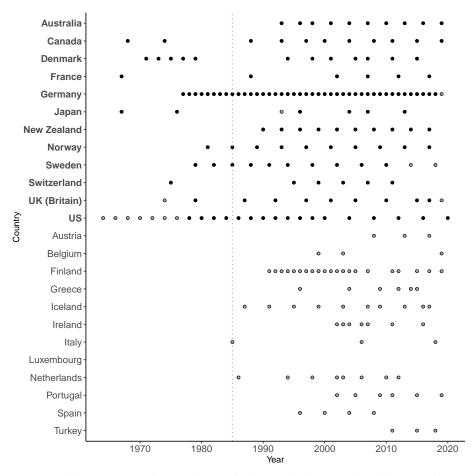
Note: Countries are sorted from left to right in descending order of the estimated linear time trend of affective polarization. Panel A plots the measure of affective polarization along with the estimated linear time trend for each country; Panel H plots the share of foreign born individuals in each country; Panel I plots the proportion of the population that is non-white in each country; and Panel J plots the degree of ethnic fractionalization in each country. See Appendix A.7 for additional details on data sources and construction. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval computed following Imbens and Kolesár (2016). Plots with an asterisk after the country name indicate the countries excluded from the computations in Figure 3 for each respective variable.

Appendix Figure 8: Potential Explanatory Factors – Plots, cont.



Note: Countries are sorted from left to right in descending order of the estimated linear time trend of affective polarization. Panel A plots the measure of affective polarization along with the estimated linear time trend for each country; Panel K plots the degree of ethnic polarization in each country; Panel L plots the degree of partisan-ideological sorting in each country; and Panel M plots the degree of elite polarization as rated by experts in each country. See Appendix A.7 for additional details on data sources and construction. Each plot reports the estimated slope (change per year) and the corresponding 95 percent confidence interval computed following Imbens and Kolesár (2016). Plots with an asterisk after the country name indicate the countries excluded from the computations in Figure 3 for each respective variable.

### A.4 List of Available Surveys for 1973 OECD Members



Appendix Figure 9: Surveys with Party Affect Questions

Note: For each member of the OECD as of 1973, the plot indicates election studies with party affect questions that we are aware of. The bolded names indicate the countries in our sample and the black dots indicate survey years in our sample. The non-bolded names indicate countries not in our sample and the gray dots indicate survey years not in our sample. The grey, dotted vertical line indicates 1985.

| Country        | In Sample | Sources  |  |
|----------------|-----------|--|--|
| Australia      | Х         | https://australianelectionstudy.org/   |  |
| Austria        |           | CSES   |  |
| Belgium        |           | https://soc.kuleuven.be/ceso/ispo/projects/; https://easy.dans.knaw.nl/ui/home         |  |
| Canada         | Х         | https://www.queensu.ca/cora/our-data/data-holdings; ICPSR 7009; ICPSR 7379             |  |
| Denmark        | Х         | http://cssr.surveybank.aau.dk/webview/   |  |
| Finland        |           | https://services.fsd.uta.fi/catalogue/index; CSES                                      |  |
| France         | Х         | ICPSR 7372; ICPSR 6583; CSES   |  |
| (West) Germany | Х         | https://www.gesis.org/   |  |
| Greece         |           | CSES; http://www.elnes.gr/studies; https://u.osu.edu/cnep/surveys/surveys-through-2012 |  |
| Iceland        |           | https://fel.hi.is  |  |
| Ireland        |           | CSES; https://www.ucd.ie/issda/data/irishnationalelectionstudy/                        |  |
| Italy          |           | http://www.itanes.org/dati/  |  |
| Japan          | Х         | ICPSR 7294; ICPSR 4682; CSES; https://u.osu.edu/cnep/                                  |  |
| Luxembourg     |           |  |  |
| Netherlands    |           | ICPSR 28221; https://www.nkodata.nl/study_units/view/11; CSES                          |  |
| New Zealand    | Х         | http://www.nzes.org/   |  |
| Norway         | Х         | https://www.nsd.no/nsddata/serier/norske_valgundersokelser_eng.html                    |  |
| Portugal       |           | https://dados.rcaap.pt/handle/10400.20/2080  |  |
| Spain          |           | CSES   |  |
| Sweden         | Х         | https://www.gu.se/valforskningsprogrammet  |  |
| Switzerland    | Х         | https://forscenter.ch/projects/selects/  |  |
| Turkey         |           | CSES   |  |
| UK (Britain)   | Х         | https://www.britishelectionstudy.com/  |  |
| US             | Х         | https://electionstudies.org/   |  |

# Appendix Table 1: Sources for Surveys with Party Affect Questions

Note: For each member of the OECD as of 1973, the table lists sources for accessing the election studies studies described in Appendix Figure 9.

#### A.5 Survey Variables

We use three main survey variables in this study: partian affect questions, party affiliation questions, and survey weights.

For partisan affect questions, we report the question wordings below, with the assigned question wording category in parentheses after the year. Survey years with similar wording are grouped together and a single example is given. In some surveys, regional parties are included only for those respondents in the relevant region.

For party affiliation questions, we do not detail the question wordings below. We use questions that ask, for example, "Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what?" The exact language varies across countries and across surveys for a given country. As with the partisan affect questions, in some surveys, regional parties are included only for those respondents in the relevant region. Throughout, we attempt to restrict the sample to respondents for which party affiliate questions were asked.

For survey weights, we report below a description of our choice of weight for each country. In choosing the survey weights, we tried to obtain the largest nationally representative sample, sometimes compromising in order to maintain consistency across years.

#### A.5.1 CSES

Surveys were conducted in dozens of different languages, usually the most common language in a particular country. We cite the official English translations here.

• Modules 1–5 (like): I'd like to know what you think about each of our political parties. After I read the name of a political party, please rate it on a scale from 0 to 10, where 0 means you strongly dislike that party and 10 means that you strongly like that party. If I come to a party you haven't heard of or you feel you do not know enough about, just say so.

Each survey included a sample weight, a demographic weight, a political weight, a combination of the three, or none. In choosing weights for a given country, we balanced preferences for consistency across years in the CSES data and consistency with our choice of weights for the non-CSES data source for the respective country.

See the CSES codebooks for a detailed discussion of deviations across country election studies in party affiliation, affect, and weight variables.

#### A.5.2 Australia

We exclude online survey respondents from 2001. Surveys were conducted in English. Partisan affect questions are as follows.

- **1993** (favourable): Finally in this section, we would like to know your feelings about the political parties. Please show how you feel about them by circling a number from 0 to 10. 10 is the highest rating, if you feel very favourable about a party, and 0 is the lowest rating, for parties you feel very unfavourable about. If you are neutral about a particular party or don't know much about them, you should give them a rating of 5.
- **1996/1998/2001/2004/2007/2010/2013/2016/2019** (like): Finally in this section, we would like to know what you think about each of our political parties. Please rate each party on a scale from 0 to 10, where 0 means you strongly dislike that party and 10 means that you strongly like that party. If you are neutral about a particular party or don't know much about them, you should give them a rating of 5.

For the 1993, 2010, and 2013 surveys, there is a single choice of weight variable. For the 2016 and the 2019 surveys, there are multiple weight options, and we choose the weight variables that account for data from all sampling approaches. All other surveys are self-weighting.

# A.5.3 Britain

Surveys were conducted in English. Partisan affect questions are as follows.

- **1979** (like): Let's say that you gave each of the parties a mark out of ten points—a mark according to how much or how little you like it. You can give each party any mark from 0 out of 10 for the least like, to 10 out of 10 for the most liked. What mark out of 10 would you give the [Insert Party Name]?
- **1987/1992** (favour-against): Please choose a phrase from this card to say how you feel about the \_\_\_\_\_ Party? (Strongly in favor, In favor, Neither in favour/nor against, Against, Strongly against, DK/Can't say)
- **1997/2001/2005/2010/2015** (like): I'm now going to ask a few questions about political parties. On a scale that runs from 0 to 10, where 0 means strongly dislike and 10 means strongly like, how do you feel about the \_\_\_\_ Party?

The 1979 survey is self-weighting. For 1987 and 1992, there is a single weight variable that weights respondents by region. There are multiple weight variables for all other surveys, and we attempt to select a weight variable for each survey that is similar to the weight variables used in earlier surveys.

#### A.5.4 Canada

Surveys were conducted in English and French. We cite the English questions here. Partisan affect questions are as follows.

- **1968** (like): You'll see here a drawing of a thermometer. It's been called a feeling thermometer because it helps measure one's feelings towards various things. Here's how it works. If you don't particularly like or dislike the person, group or activity we are asking about, place them at the 50 degree mark. If your feelings are very warm then you would give a score between 50 and 100, the warmer your feelings, the higher the score. On the other hand, if you do not like the person, group or activity very much, you would place them somewhere between 0 and 50. The cooler your feelings, the closer the number will be to 0. If you don't know too much about one of the items mentioned, just say so, and we'll go on to the next one ... How would you rate the \_\_\_\_ party, taken as a whole?
- **1974** (warm): You will see here a drawing of a thermometer. It is called a feeling thermometer because it helps us measure people's feelings towards various things. Here is how it works. If you don't have any particular feeling about the things we are asking about, place the thermometer at the 50-degree mark. If your feelings are very warm toward a particular thing, you would give a score between 50 and 100, the warmer your feelings, the higher the score. On the other hand, if your feelings are relatively cool toward something, you would place the thermometer between 0 and 50. The cooler your feelings, the closer the score will be to zero. If you don't know too much about any of these items mentioned, just say so and we will go on to the next one... How would you rate the \_\_\_\_ party, taken as a whole?
- **1988/1993** (favourable): Now let's talk about your feelings towards the political parties, their leaders and their candidates. I'll read a name and ask you to rate a person or a party on a thermometer that runs from 0 to 100 degrees. Ratings between 50 and 100 degrees mean that you feel favourable toward that person. Ratings between 0 and 50 degrees mean that you feel unfavourable toward that person. You may use any number from 0 to 100 to tell me how you feel. How would you rate the \_\_\_\_\_ Party?
  - 1993 clarifies "federal \_\_\_\_ Party"
- **1997/2000/2004/2008/2011/2015/2019** (like): Now the political parties. On the same scale, where zero means you really dislike the party and one hundred means you really like the party. How do you feel about the federal \_\_\_\_ party?

For all surveys, we choose the weight variable that provides a nationally representative weight for all respondents when options are available. The weight option we use for 1974 survey weights

respondents based on provinces. The options we use for 1988, 1993, 1997, 2000, 2004, 2008, 2011, and 2015 surveys weight respondents across provinces and household demographics. Finally, weighting for 2019 survey is done on the basis of province and phone type.

### A.5.5 Denmark

Surveys were conducted in Danish. We cite the English translations provided to us by Rune Stubager here for the examples in each group.

- **1971/1973/1975/1977/1979** (like): I have a card with a kind of thermometer called a 'sympathy thermometer', and we will ask you to give the parties' temperatures according to how much you like them. Give plus temperatures to all of the parties you like the more you like a party, the higher the temperature. The parties you don't like get minus temperatures. If you neither like nor dislike a party, give it a 0.
- **1994** (like): Here are some questions about how much you like the parties, party leaders, and the policy which the parties have pursued. Even though you may view a party, its leader and policy as a whole, we ask you to try and answer each question. Beginning with the leaders, here is a card with a scale running from 0 to 10. The more you like the person, the higher mark you give. If you neither like nor dislike a person, you should give 5.
- **1998/2001/2005/2007/2011/2015** (like): Now I would like to hear what you think of the political parties. After I have mentioned the party, I want you to place it on this scale from 0 to 10, where 0 means you that dislike the party were much and 10 means that you like it were much. If I mention a party that you don't know or don't feel you know enough about, just say so.

We exclude the 2019 Danish Election Study (available at http://bank1.surveybank.aau.dk/webview/) because the survey only asks whether respondents identify with a party without following up to determine the party the respondent identifies with. For 1971 and 1973 there are no weights. For 1975 and 1994, since it is not clear how the given weights are constructed, we do not use them. For 1977, the survey administrators imputed non-responses with responses from respondents who possessed similar demographic features; we are unaware of a way to detect these imputations and do not attempt to remove them. There is also a political weight for 1977, which we did not use because we are only using demographic weights. For the remaining years, for consistency, we only use those weights that take into account measures associated with geography (such as county or region), gender, and age—with the exception of 1998 (which also takes into account the number of adults in the household) and 1979 (which also takes into account the level of urbanization).

### A.5.6 France

Surveys were conducted in French. We cite the provided English translation for the 1967 survey, while we cite our own translation for the 1988 survey.

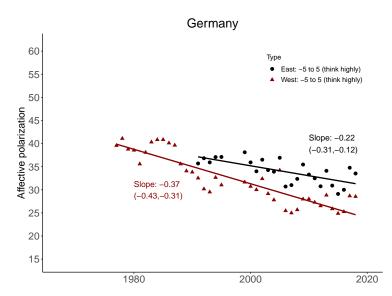
- **1967** (close-negative feelings): There are groups and individuals who influence government and public opinion. We would like to know your feelings in respect to them. Would you put a figure between 0 and 100 by these persons or groups according to the feelings which you have for them. 100 = close feelings. 50 = neither for nor against. 0 = negative feelings.
  - In the raw data provided, responses between 0 and 2 were coded as 2 and responses between 97 and 100 were coded as 97. We recode these values to 0 and 100 respectively.
  - We grouped the parties "UNR (nothing more precise)" and "UNR leftist; Gaullists of the left; UDT", which had 353 and 4 affiliates respectively, together.
- **1988** (sympathy): I would now like to know your personal feeling on political parties and the main candidates for the private election. Using this scale, do you want to put a score from 0 to 100 to the people or groups that I will name you in depending on your sympathy for them. -100 means you have a lot of sympathy 0 means you don't like it at all 50 means you have neither sympathy nor antipathy or that you don't know much of them. What grade would you give to: \_\_\_\_\_
- 2002, 2007, 2012, 2017: We use data from the CSES. See the CSES question wording.

There is a single choice of weight variable for 1967. No weight variables were provided for 1988.

# A.5.7 (West) Germany

We drop observations in some months of 1982, 1987 and 1988 where multiple versions of the questionnaire were used (see variable v79 in the data outlining these observations). We drop duplicate respondents. We restrict attention to West Germany (see variable V4a), except for the years 1996–1998 when the surveys were not separately conducted between the two regions. In Appendix Figure 10 below, we compare trends in East versus West Germany, excluding 1996–1998 when these regions are not distinguished.

#### Appendix Figure 10: Trends in Affective Polarization—East vs. West Germany



Note: The plot shows estimates of affective polarization  $\Pi$  as defined in Section 2 across two different series constructed from the Politbaroameter survey conducted in the Germany. One point represents one survey. The red line with triangle markers uses data from West Germany. The black line with the circle markers uses data from East Germany. Each line is a fitted bivariate linear regression line with affective polarization as the dependent variable and survey year as the independent variable. The estimated slopes (change per year) and the corresponding 95 percent confidence intervals, computed following Imbens and Kolesár (2016), are also reported. We exclude data from 1996–1998 for both series because the surveys do not distinguish East and West Germany in these years.

Surveys were conducted in German. We translate the question ourselves. Partisan affect questions are as follows.

• All years (think highly): Imagine a thermometer that goes from +5 to -5 with a 0 point in between. With this thermometer, tell me what you think of the individual parties. +5 means that you think highly of the party. -5 means you don't think anything of it at all. With the values in between, you can give your opinion in stages.

There is a single choice of weight variable for all years.

#### A.5.8 Japan

Surveys were conducted in Japanese. We cite the official English translation here. Partisan affect questions are as follows.

• **1967** (like): Now I am going to ask you whether you like or dislike political parties. How much do you like \_\_\_\_?

- Like = 1, Like a Little = 2, Depends = 3, Dislike a Little = 4, Dislike = 5

- **1976** (like) : People have all kinds of feelings toward the people and groups which are influential in politics. In answering the following questions, if you don't like or dislike a person or group would you indicate this by giving them a rating of 50 degrees? If you like the person or group would you give them a rating between 50 and 100 degrees, and if you dislike them a rating between 0 and 50 degrees?
- 1996, 2004, 2007, 2013: We use data from the CSES. See the CSES question wording.

There is either a single choice of weight or no weight in 1967 and 1976. For weight choices in latter years, see CSES.

# A.5.9 New Zealand

Surveys were conducted in English and Maori. We cite the English questions here. Partisan affect questions are as follows.

- **1990/1993** (support-oppose): Regardless of what their chances were in winning your particular electorate, or even winning any seats at all, how do you feel about these political parties? (Strongly Support = 1, Support = 2, Neutral = 3, Oppose = 4, Strongly Oppose = 5)
- **1996/1999/2002/2005/2008/2011/2014/2017** (like): We would like to know what you think about each of these political parties. Please rate each party on a scale from 0 to 10, where 0 means you strongly dislike that party and 10 means that you strongly like that party. If you haven't heard about that party or don't know enough about it, please circle '99' under 'don't know'. How do you feel about: [Insert Party Name]

For all surveys, we use weights associated with validated voters only for consistency across surveys. Weights for non-validated voters are not reported in the surveys between 2008 and 2017.

# A.5.10 Norway

Surveys were conducted in Norwegian. We cite the official English translation here. Partisan affect questions are as follows.

• **1981/1985/1989/1993** (like): We want to know how much or little you like the different parties. On this card is a scale that we call "sympathy thermometer." At 50-degrees-line position the parties that you neither like or dislike. A party that you like to have a location from 50 to 100 degrees. The better you like the party, the higher position. However, if it is a party you do not like, it should be placed between 0 and 50 degrees, with 0 as the expression of at least sympathy.

• **1997/2001/2005/2009/2013/2017** (like): After I read the name of a political party, please rate it on a scale from 0 to 10, where 0 means you strongly dislike that party and 10 means that you strongly like that party.

All surveys except 2013 and 2017 are self-weighting. For the 2013 survey, we use the weight variable that includes mail-in respondents. For the 2017 survey, we use the post-stratified weight variable based on gender, education, and age.

# A.5.11 Sweden

Surveys were conducted in Swedish. We cite the official English translation here. Partisan affect questions are as follows.

• All Years (like): On this card there is a kind of scale. I would like you to use it in order to state how much you like or dislike the parties. If you like a party, use the "plus" figures. The better you like a party the higher the "plus" figure. For parties you dislike, use the "minus" figures. The more you dislike a party, the higher the "minus" figure. The zero point on the scale indicates that you neither like nor dislike a party. Where would you like to place the \_\_\_\_? (Ranges from -5 to 5.)

All surveys are self-weighting.

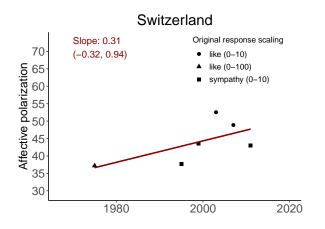
# A.5.12 Switzerland

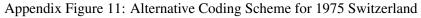
Surveys were conducted in German, French and Italian. We translate the questions ourselves. Partisan affect questions are as follows.

- **1975** (like): Here is a scale we call a favorability thermometer. Please give a score between 0 and 100 indicating how much you like the following groups and organizations. 100 means that you like them very much, 0 means that you do not like them at all. If you don't particularly like or dislike them... give a score of 50. What score would you give to [Insert Party Name]?
- **1995/1999** (sympathy): Now I would like to know what you think of our political parties. When I read the name of a political party to you, please indicate where you place it on a scale from 0 to 10, with 0 meaning "no sympathy at all", and 10 meaning "a lot of sympathy".
- 2003: We use data from the CSES. See the CSES question wording.
- **2007** (like): We would now like to know what you think of some of the political parties. Please place the \_\_\_\_\_ on a scale from 0 to 10. 0 means that you do not like this party at all. 10 means you like this party very much.

• **2011** (sympathy): Could you indicate, on a scale of 0 to 10, how much sympathy you feel for the following parties.

The documentation states that "In 1975, the scale was originally from 0 to 100, but 0 was later recoded wrongly to . (no value) and then to -1, so we don't know which -1 are originally 0's and which are really missings." In the main analysis, we treat the 1975 coding as-is. In Appendix Figure 11 below, we instead replace all out-party missing or -1 codings with 0 for the affect score and leave in-party affect scores as-is for the four parties for which affect questions were asked.





Note: The plot shows our estimates of affective polarization  $\Pi$  as defined in Section 2. One point represents one survey. The red line displays a fitted bivariate linear regression line with affective polarization as the dependent variable and survey year as the independent variable. The estimated slope (change per year) and the corresponding 95 percent confidence interval, computed following Imbens and Kolesár (2016), are also reported. For the data in 1975, we replace all out-party missing or -1 codings with zero for the four affect questions asked. We leave all in-party responses to the affect questions as-is.

For all surveys, we use the weight variable that weights respondents by canton, turnout, and party choice.

#### A.5.13 US

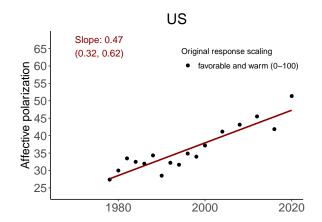
Surveys were conducted in English. Spanish and French translations did occur. We cite the English question here. Partisan affect questions are as follows.

• All Years (favorable and warm): We'd also like to get your feelings about some groups in American society. When I read the name of a group, we'd like you to rate it with what we call a feeling thermometer. Ratings between 50 degrees-100 degrees mean that you feel

favorably and warm toward the group; ratings between 0 and 50 degrees mean that you don't feel favorably towards the group and that you don't care too much for that group. If you don't feel particularly warm or cold toward a group you would rate them at 50 degrees. If we come to a group you don't know much about, just tell me and we'll move on to the next one.

- In the raw data provided for 2016 and earlier, responses between 97 and 100 were coded as 97. We recode this response to 100. The data for 2020 was not top coded.

In the main analysis, we include all interview modes. Some respondents in 2012, 2016, and 2020 were interviewed via the web. In Appendix Figure 12 below, we exclude those respondents interviewed via the web and restrict the data to respondents interviewed face-to-face, over video, and over telephone.



Appendix Figure 12: Excluding Web Respondents in US

Note: The plot shows our estimates of affective polarization  $\Pi$  as defined in Section 2. One point represents one survey. The red line displays a fitted bivariate linear regression line with affective polarization as the dependent variable and survey year as the independent variable. The estimated slope (change per year) and the corresponding 95 percent confidence interval, computed following Imbens and Kolesár (2016), are also reported. For the data in 2012, 2016, and 2020, we exclude those respondents interviewed via the web and restrict the data to respondents interviewed face-to-face, over video, and over telephone. Sample weights are unchanged.

For all surveys, we use the weight variable that includes respondents across all survey modes.

### A.6 Election Study References and Disclaimers

### A.6.1 CSES

Data comes from the Comparative Study of Electoral Systems (CSES) (www.cses.org). These materials are based on work supported by the American National Science Foundation (www.nsf.gov) under grant numbers SES-0817701, SES-1154687, SES-1420973, and SES-1760058, the GESIS - Leibniz Institute for the Social Sciences, the University of Michigan, in-kind support of participating election studies, the many organizations that sponsor planning meetings and conferences, and the numerous organizations that fund national election studies by CSES collaborators. Any opinions, findings, and conclusions, or recommendations expressed in these materials are those of the author(s) and do not necessarily reflect the views of the funding organizations.

- The Comparative Study of Electoral Systems (www.cses.org). CSES Integrated Module Dataset Phase 3 Release [dataset and documentation]. December 8, 2020 version. doi:10.7804/cses.imd.2020-12-08.
- The Comparative Study of Electoral Systems (www.cses.org). CSES Module 5 Second Advance Release [dataset and documentation]. May 14, 2020 version. doi:10.7804/cses.module5.2020-05-14.

# A.6.2 Australia

Data comes from the Australian Election Study<sup>16</sup> (https://australianelectionstudy.org/). Those who carried out the original analysis and collection of the data bear no responsibility for the further analysis or interpretation of it.

- Jones, Roger; McAllister, Ian; Denemark, David; Gow, David, 2017, "Australian Election Study, 1993". doi:10.4225/87/ZZ3NOB, ADA Dataverse, V1, UNF:6:3C/DZ94Ci0V2mfL02PVpX w==
- Jones, Roger; McAllister, Ian; Gow, David, 2017, "Australian Election Study, 1996" doi:10.4225/ 87/NSDHWM, ADA Dataverse, V1, UNF:6:V05mNiOGYLZnBaihME2SIA==
- Bean, Clive; Gow, David; McAllister, Ian, 2017, "Australian Election Study, 1998" doi:10.4225/87 /FFBWUU, ADA Dataverse, V2, UNF:6:pmAXB4lfnfvlseqWTWKOkg==
- Bean, Clive; Gow, David; McAllister, Ian, 2017, "Australian Election Study, 2001" doi:10.4225/87 /CALXMK, ADA Dataverse, V1, UNF:6:8dudxHV83HO/5+itv3DNjA==
- Bean, Clive; McAllister, Ian; Gibson, Rachel; Gow, David, 2017, "Australian Election Study, 2004" doi:10.4225/87/G9ITIO, ADA Dataverse, V1, UNF:6:Qer+KzJrJC+zlC3Gm6qDmw==

<sup>&</sup>lt;sup>16</sup>Hosted at the Australian Data Archive (https://dataverse.ada.edu.au/).

- Bean, Clive; McAllister, Ian; Gow, David, 2017, "Australian Election Study, 2007" doi:10.4225/87 /ZBUOW0, ADA Dataverse, V1, UNF:6:D7a6fhN+szVMSQF9xIh5+A==
- McAllister, Ian; Bean, Clive; Gibson, Rachel Kay; Pietsch, Juliet, 2017, "Australian Election Study, 2010" doi:10.4225/87/CYJNSM, ADA Dataverse, V2, UNF:6:3iyzr2dBihOrVkbafFkR ZA==
- Bean, Clive; McAllister, Ian; Pietsch, Juliet; Gibson, Rachel Kay, 2017, "Australian Election Study, 2013" doi:10.4225/87/WDBBAS, ADA Dataverse, V3, UNF:6:6gMySFLvbEH1ccG5 80m4Sg==
- McAllister, Ian; Makkai, Toni; Bean, Clive; Gibson, Rachel Kay, 2017, "Australian Election Study, 2016" doi:10.4225/87/7OZCZA, ADA Dataverse, V2, UNF:6:TNnUHDn0ZNSIIM94TQph Ww==
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#### A.6.3 Britain

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#### A.6.4 Canada

Data comes from the Canadian Election Study (https://www.queensu.ca/cora/our-data/data-holdings).

Data from the 1968 Canadian National Election Study were made available by the Inter-University Consortium for Political and Social Research. The data were originally collected by John Meisel of Queen's University. Neither the original collector of the data nor the Consortium bear any responsibility for the analyses or the interpretations presented here.

Data from the 1974 Canadian National Election Study were made available by the Inter-University Consortium for Political and Social Research. The data were originally collected by Harold Clarke, Jane Jenson, Lawrence Leduc and Jon Pammett. Neither the original collectors of the data nor the Consortium bear any responsibility for the analyses or the interpretations presented here.

1984 Canadian National Election Study, which was funded by the Social Sciences and Humanities Research Council of Canada, were made available by the (Study's Principal Investigators or Archive). The data were collected by R.D. Lambert, S.D. Brown, J.E. Curtis, B.J. Kay and J.M. Wilson. The original collectors of the data and SSHRCC (and the Archive) bear no responsibility for the analyses and interpretations presented here.

Data from the 1988 Canadian National Election Study were funded by the Social Sciences and Humanities Research Council of Canada (Grant #411-88-0030). The data were collected by the Institute for Social Research, York University for Richard Johnston, André Blais, Henry E. Brady and Jean Crête. The investigators, SSHRC and the Institute for Social Research bear no responsibility for the analyses and interpretations presented here.

Data from the 1993 Canadian Election Study were provided by the Institute for Social Research, York University. The survey was funded by the Social Sciences and Humanities Research Council of Canada (SSHRC), grant numbers 411-92-0019 and 421-92-0026, and was completed for the 1992/93 Canadian Election Team of Richard Johnston (University of British Columbia), André Blais (Université de Montréal), Henry Brady (University of California at Berkeley), Elisabeth Gidengil (McGill University), and Neil Nevitte (University of Calgary). Neither the Institute for Social Research, the SSHRC, nor the Canadian Election Team are responsible for the analyses and interpretations presented here. Data from the 1997 Canadian Election Survey were provided by the Institute for Social Research, York University. The survey was funded by the Social Sciences and Humanities Research Council of Canada (SSHRC), grant number 412-96-0007 and was completed for the 1997 Canadian Election Team of André Blais (Université de Montréal), Elisabeth Gidengil (McGill University), Richard Nadeau (Université de Montréal) and Neil Nevitte (University of Toronto). Neither the Institute for Social Research, the SSHRC, nor the Canadian Election Survey Team are responsible for the analyses and interpretations presented here.

Data from the 2000 Canadian Election Survey were provided by the Institute for Social Research, York University. The survey was funded by the Social Sciences and Humanities Research Council of Canada (SSHRC), and was completed for the 2000 Canadian Election Team of André Blais (Université de Montréal), Elisabeth Gidengil (McGill University), Richard Nadeau (Université de Montréal) and Neil Nevitte (University of Toronto). Neither the Institute for Social Research, the SSHRC, nor the Canadian Election Survey Team are responsible for the analyses and interpretations presented here.

Data from the 2004 and the 2006 Canadian Election Surveys were provided by the Institute for Social Research, York University. The surveys were funded by Elections Canada and the Social Sciences and Humanities Research Council of Canada (SSHRC), and was completed for the Canadian Election Team of André Blais (Université de Montréal), Joanna Everitt, University of New Brunswick, Patrick Fournier (Université de Montréal), Elisabeth Gidengil (McGill University), and Neil Nevitte (University of Toronto). Neither the Institute for Social Research, the SSHRC, Elections Canada nor the Canadian Election Survey Team are responsible for the analyses and interpretations presented here.

Data from the 2008 Canadian Election Surveys were provided by the Institute for Social Research, York University. The survey was funded by Elections Canada, and was completed for the Canadian Election Team of Elisabeth Gidengil (McGill University), Joanna Everitt, University of New Brunswick, Patrick Fournier (Université de Montréal), and Neil Nevitte (University of Toronto). Neither the Institute for Social Research, Elections Canada, or the Canadian Election Survey Team are responsible for the analyses and interpretations presented here.

Data from the 2011 Canadian Election Survey were provided by the Institute for Social Research, York University. The survey was funded by Elections Canada, and was completed for the Canadian Election Team of Patrick Fournier (Université de Montréal), Fred Cutler (University of British Columbia), Stuart Soroka (McGill University), and Dietlind Stolle (McGill University). Neither the Institute for Social Research, Elections Canada, or the Canadian Election Survey Team are responsible for the analyses and interpretations presented here.

Data from the 2015 Canadian Election Study were provided by the Institute for Social Research, York University. The survey was funded by the Social Sciences and Humanities Research Council (SSHRC) and Elections Canada, and was completed for the Canadian Election Study Team of Patrick Fournier (Université de Montréal), Fred Cutler (University of British Columbia), Stuart Soroka (University of Michigan), and Dietlind Stolle (McGill University). Neither the Institute for Social Research, SSHRC, Elections Canada, nor the Canadian Election Study Team are responsible for the analyses and interpretations presented here.

Data from the Canadian Election Study, 2019, Phone Survey were produced and authored by Laura B Stephenson (Western University), Allison Harell (Université du Québec à Montréal), Daniel Rubenson (Ryerson University), and Peter John Loewen (University of Toronto). The survey was funded by Social Sciences and Humanities Research Council of Canada, and the data were distributed by Canadian Opinion Research Archive, Queen's University. Neither the Social Sciences and Humanities Research Council of Canada, the above-mentioned producers of the data, nor Canadian Opinion Research Archive are responsible for the analyses and interpretations presented here.

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Data comes from the Danish Election Project made accessible by the Danish National Archive (https://www.sa.dk/da/forskning-rigsarkivet/benyt-surveydata/valgundersoegelsen/). We also supplemented codebooks from the National Archive with codebooks from Survey Bank (http://bank1. surveybank.aau.dk/webview/). Neither the Danish Election Project, the Danish National Archive, nor Survey Bank are responsible for the analysis/interpretation of the data presented here.

### A.6.6 France

Data comes from the Inter-university Consortium for Political and Social Research (ICPSR) (https://www.icpsr.umich.edu/web/pages/index.html). The original collector of the data, ICPSR, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

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# A.6.7 (West) Germany

Data comes from the Politbarometers (https://www.gesis.org/en/elections-home/politbarometer/ recent-time-series/). Neither the depositor (individual(s), institute(s) etc.) nor GESIS bear any responsibility for the analysis, the methods used for the analysis, or the interpretation with regard to contents of the data which is provided by GESIS.

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#### A.6.10 Norway

Data comes from the Norwegian Election Research Programme (https://nsd.no/nsddata/serier/norske\_valgundersokelser\_eng.html).<sup>17</sup>

#### A.6.11 Sweden

Data comes from the Swedish National Election Studies (https://www.gu.se/en/swedish-nationalelection-studies). Neither SND nor the principal investigator take any responsibility for how the data are used, nor for any interpretations of or conclusions based on it.

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<sup>&</sup>lt;sup>17</sup>Some of the data applied in the analysis in this publication are based on "Election Survey 1957 - 2017." The data are provided by Statistics Norway and Institute for Social Research, and prepared and made available by Norwegian Centre for Research Data (NSD). Neither Statistics Norway, Institute for Social Research nor NSD are responsible for the analysis/interpretation of the data presented here.

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### A.6.12 Switzerland

Data comes from the Swiss Election Study (https://forscenter.ch/projects/selects/).

Selects: Swiss national election studies, cumulated file 1971-2015 [Dataset]. Distributed by FORS, Lausanne, 2017. www.selects.ch https://doi.org/10.23662/FORS-DS-495-2.

# A.6.13 US

Data comes from The American National Election Study (https://electionstudies.org/). In our main analysis, we use the 1948–2016 Time Series Cumulative Data File and the 2020 Time Series Study. We also use the 1996, 2004, 2008, 2012, and 2016 Time Series Versions for specific robustness tests. The original collector of the data, ANES, and the relevant funding agency/agencies bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

The American National Election Study (https://electionstudies.org/). These materials are based on work supported by the National Science Foundation under grant numbers SES 1444721, 2014-2017, the University of Michigan, and Stanford University.

### A.7 Data Sources for Potential Explanatory Variables

See Appendix Figure 8 for plots of the available data for each country and variable.

- *Inequality (Gini)*: Gini coefficient from Roser and Ortiz-Ospina (2013) and Gini Index (World Bank estimate) from the World Bank (https://data.worldbank.org/indicator/SI.POV.GINI; downloaded on November 27, 2020). For each country, we use the data series that covers more years, and report in Appendix Table 2 the correlation between the two series for overlapping years.
- Trade Share of GDP: Trade (percent of GDP) from the World Bank (https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS; downloaded on November 27, 2020). Defined to be the the sum of exports and imports of goods and services measured as a share of gross domestic product.
- *Internet Penetration*: Individuals using the internet (percent of population) from the World Bank (https://data.worldbank.org/indicator/IT.NET.USER.ZS; downloaded on November 27, 2020). Defined to be individuals (percent of population) who have used the Internet (from any location) in the last 3 months.
- *Share Getting News Online:* Share of respondents in the Reuters Institute Digital News Report 2020 survey (Newman et al. 2020) who reported getting news online (including social media) in the last week. We assume the 1995 value for each country is 0.
- *Priv. 24-hr TV News (Share):* Share of respondents in the Reuters Institute Digital News Report 2020 survey (Newman et al. 2020) who reported watching the largest private 24-hour TV news network in the last week. We assume the value for each country was zero in 1980, the launch year of CNN (the first 24-hr private news network).
- *Priv. 24-hr TV News (Count):* The number of private 24-hour TV news networks in the Reuters Institute Digital News Report 2020 survey (Newman et al. 2020). We assume the value for each country was zero in 1980, the launch year of CNN (the first 24-hr private news network).
- Foreign-born Share: We impute the share of foreign-born population using stocks of foreign-born population from OECD (2020), total international migrant stock from the World Bank (https://data.worldbank.org/indicator/SM.POP.TOTL; downloaded on November 28, 2020), and total population from the World Bank (https://data.worldbank.org/indicator/SP.POP.TOTL; downloaded on November 28, 2020). To complement our primary source, we obtain foreign-born population (percent of population) from OECD (2019). For each country, we rescale

the data from OECD (2019) by adding a scalar constant such that the two series are equal on average for overlapping years. We use the non-OECD (2019) data for overlapping country-years.

- *Non-white Share*: Uses data from Drazanova (2020).<sup>18</sup> In general, the classification of race/ethnicity/nationality varies across countries and can vary over time, including which groups are included in an "other" category. When shares do not sum to one (e.g., survey or census respondents may self-classify into multiple categories or rounding errors), we renormalize the shares to sum to one by dividing by their unnormalized sum. We classify groups as "white" if they are labeled as such or are of European heritage (including Turkish).
- *Ethnic Fractionalization:* Ethnic fractionalization (scaled by 100) computed using data from Drazanova (2020) and following the equation for "FRAC" in Montalvo and Reynal-Querol (2005, p. 798).
- *Ethnic Polarization:* Ethnic polarization (scaled by 100) computed using data from Drazanova (2020) and following the equation for "RQ" in Montalvo and Reynal-Querol (2005, p. 798).
- *Partisan-ideological sorting*: The *R*<sup>2</sup> from a weighted regression of respondent's self-reported ideology (numeric liberal-conservative scale) on party affiliation indicators using the data in our main series and the set of parties used in Panel A of Appendix Figure 1 (see Kevins and Soroka 2018). For Japan, we only use our CSES-derived series and supplement with data from the World Values Survey (Inglehart et al. 2014). The liberal-conservative scale varies across and within countries.
- *Elite polarization*: The measure of adjusted elite polarization, as rated by experts, reported in Rehm and Reilly (2010), scaled by 100.

<sup>&</sup>lt;sup>18</sup>Downloaded from https://github.com/lenkadrazanova/HIEF\_dataset and

https://uofi.app.box.com/s/ien7v6e2y7tzzy6t7nljkqb1ge2uww6n on June 3, 2021.

| Country        | Correlation | Source                        |
|----------------|-------------|-------------------------------|
| Australia      | 0.904       | Roser and Ortiz-Ospina (2013) |
| Canada         | 0.857       | Roser and Ortiz-Ospina (2013) |
| Denmark        | -           | World Bank                    |
| France         | 0.796       | Roser and Ortiz-Ospina (2013) |
| Germany        | 0.885       | Roser and Ortiz-Ospina (2013) |
| Japan          | -           | Roser and Ortiz-Ospina (2013) |
| New Zealand    | -           | Roser and Ortiz-Ospina (2013) |
| Norway         | 0.831       | Roser and Ortiz-Ospina (2013) |
| Sweden         | 0.946       | Roser and Ortiz-Ospina (2013) |
| Switzerland    | 0.918       | World Bank                    |
| United Kingdom | 0.723       | Roser and Ortiz-Ospina (2013) |
| United States  | 0.962       | Roser and Ortiz-Ospina (2013) |

Appendix Table 2: Correlation in Gini Coefficient between Sources

Note: The table reports the source of inequality (Gini) for each country and the correlation between the data series from Roser and Ortiz-Ospina (2013) and from World Bank (https://data.worldbank.org/indicator/SI.POV.GINI). Correlation is omitted for countries of which the two series have fewer than 2 overlapping years.

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