AFFECTIVE POLARISATION,
INTERNET AND SOCIAL MEDIA USE IN THE UK

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ABSTRACT

Affective polarisation — partisans' growing animus towards the opposition — is an increasingly salient feature of political life in the United States. Comparatively, this phenomenon has rarely been studied outside the US. In this paper, we address this gap and build on extant research context by charting the evolution of affect-based partisan animosity in the United Kingdom between 2001 and 2017. We find growing levels of affective polarisation in the UK and explore possible explanations for this phenomenon, focusing in particular on partisan ideological sorting and strength of partisan affiliation. Our preliminary findings indicate that none of these factors are positively associated with affective polarisation.

INTRODUCTION

Few topics have received as much scholarly attention in the past decade as political polarisation. While competing definitions exist, mass polarisation is generally thought to reflect a growing ideological gap between partisans over policy issues (Lelkes, 2016). On this view — sometimes referred to as "ideological polarisation" (Iyengar & Westwood, 2015) — the more partisans diverge in terms of policy preferences (Fiorina & Abrams, 2008) and crystallise into opposite and internally consistent political factions (Abramowitz & Saunders, 2005) the more polarised they are. Recently, scholars of US politics have started paying attention to a new form of polarisation, grounded in social identity theory and considerations of affective social distance. Unlike issue-based polarisation, which reflects ideological disagreements over policy issues, affective polarisation is characterised by an intense dislike and animosity between partisans and an inflated sense of trust for members of one's own party (Iyengar, Sood, & Lelkes, 2012). Scholars argue that this type of behaviour is linked to partisanship's role as a social identity. Put differently, people who identify with a political party or

ideology tend to develop emotional attachment towards their in-group, which motivates the way they perceive and interact with others (Tajfel & Turner, 1979). The extent of this phenomenon and its consequences on social and political attitudes – increased levels of partisan bias, social segregation, and declining levels of trust and cooperation – are well-documented in the US, where most of research on this topic is centred (Iyengar & Krupenkin, 2018; Iyengar et al., 2012; Mason, 2015).

In comparison, we know relatively little about affective manifestations of polarisation in multi-party contexts. Studies in this line of work are nascent and roughly fall into two categories: either exploring the impact of party-based identities on social trust and cooperation – notably in Spain, Portugal and Chile (González et al., 2008; Martini & Torcal, 2016) – or offering new system-level measures to quantify polarisation based on party support (positive partisanship) and rejection (negative partisanship) rather than issue-based disagreements (Lauka, Mccoy, & Firat, 2018; Mayer, 2017; Reiljan, 2016). As (Iyengar et al. 2018) note, there is a dearth of comparative studies that test how research frameworks developed to model socio-political developments in the US fare in other political settings. To date, for example, only one study has attempted to measure levels of negative partisan affect in the UK. Using data from multiple cross-national surveys, Iyengar et al. (2012) analyse changes in three different indicators of affective polarisation between 1960 and 2008 and find that affective social distance increased only moderately in the UK compared to the US during that time. The study was limited, however, in that the UK data only covered one indicator of partisan affect (namely, feelings about inter-party marriage), and data sources were restricted to two "one-shot" surveys — the 1960 Almond Verba Five Nation survey and a 2008 YouGov poll. In this paper, we seek to address this gap by extending existing work on affect-based polarisation to the European context.

The UK has a history of confrontational politics, with parties grounded in long-standing social and class cleavages that likely reflect strong social identities (Huddy & Bankert, 2017). The nation therefore makes for a particularly suitable case study in affective polarisation. Despite being a multi-party system, the UK has long orbited around two dominant parties: the Labour and Conservative Parties. The 2016 Brexit referendum to leave the European Union and subsequent 2017 General Election have also sparked sharp societal and ideological divisions within the country, prompting speculations of a return to "two-party politics" (Heath & Goodwin, 2017). From a theoretical standpoint, it is interesting to explore how a multi-party system functioning as a *de facto* two-party system compares to the US case, and whether there exist differences in relative strength of political identity or other factors that might explain differing levels of affective polarisation.

Negative partisan affect poses a serious concern to democratic politics, as it has long been argued that well-functioning polities require citizens to tolerate a diversity of a political opinions

(Downs, 1957; Mill, 1859). Yet while scholars agree that affective polarisation warrants scrutiny, the root causes of this phenomenon are still poorly understood. One prominent hypothesis is that the internet could be driving ideological and affective polarisation by allowing citizens to pursue news and social relationships that reinforce their pre-existing political beliefs, often playing to base emotions like fear and outrage. While some evidence has emerged that selective exposure to ideologically slanted news has deleterious effects on political cognition and behaviour (Garrett, Weeks, & Neo, 2016; M. Levendusky, 2013) other authors have challenged whether social media has any measurable impact on these processes (Boxell, Gentzkow, & Shapiro, 2017; Prior, 2013). We examine this question in the context of British politics. However, we note that the observational data at our disposal is insufficient to draw robust causal inferences regarding this subtle and complex social phenomenon.

The below sections are structured as follows. First, we provide a brief theoretical overview of the concept of affective polarisation, analysing the evolution of this phenomenon in the UK over the last two decades. Having documented increasing levels of affective polarisation, we proceed to explore several factors that might explain this growing partisan divide, focusing in particular on partisan strength and ideological sorting. We compare the strength of these predictors to that of other prominent social cleavages including age, gender, educational achievement, and level of political interest. Finally, we contribute to ongoing debates on the relationship between internet, social media, and polarisation by measuring how recent changes in affective polarisation relate to respondents' likelihood of obtaining news and information about politics on social media.

LITERATURE REVIEW

Partisanship as social identity

Affective polarisation is grounded in the notion of partisanship as social identity. Social identity theory was first developed as a way to explain intergroup behaviour (Abrams & Hogg, 1988; Tajfel & Turner, 1979) and provide an account of the role of the self in group processes (Hogg & Turner, 1987). The core tenet of this approach is that individuals derive part of their identity from the social groups they belong to, "together with some emotional and value significance to [them] of this group membership" (Tajfel, quoted in Wheelan, 2005, p. 133). Partisanship, too, is a form of social identity in its own right (Green, Palmquist, & Schickler, 2002; Sears & Funk, 1999). Most people develop a psychological attachment to a political party or ideology in early life and that "political identity" tends to remain stable throughout one's life, regardless of economic fluctuations or changes in parties' policy platform. This also extends beyond mere parties. Research suggests that it is possible for people to form social

identities around ideologies and opinion-based groups — as distinct from the substantive set of policies with which these are attached — and that these identities are just as potent as partisan identities in motivating political activism (Huddy, Mason, & Aarøe, 2015) distorting information processing (Malka & Lelkes, 2010) and generating bias against ideological opponents (McGarty et al., 2009). This definition stands in contrast to the traditional political science view of polarisation as divergence in policy positions (Isenberg, 1986). Though related, affective polarisation draws on the sociological concept of affective social distance, which centres on individuals' affective dispositions towards other groups of people (Bogardus, 1947). In that sense, affective polarisation may be better defined discursively and behaviourally as "inter-partisan bias", or the tendency of party identifiers to favour and evaluate their co-partisan positively and their opponents negatively (Iyengar & Westwood, 2015). This can be measured in a number of ways, including survey-based feeling scores towards various political parties and candidates, traits rating of party supporters (Levendusky & Malhotra, 2016) as well as implicit and behavioural measures, such as the willingness to give or withhold financial rewards to political rivals in economic games (Carlin & Love, 2013).

Social and political consequences of affective polarisation

There is already substantial evidence that emotional attachment to a party or ideology determines a range of political behaviours, such as vote choice, timing of voting decisions and involvement in political campaigns (Huddy et al., 2015). But beyond motivating political action, partisanship also drives a number of social ills, including bias and outright discrimination towards opposing partisans. In the US, large proportions of both Republicans and Democrats express highly negative views of their political rivals and are now troubled by the prospect of dating a supporter of the main opposing party (Huddy et al., 2015), while demonstrating generally low levels of inter-partisan trust and cooperation (Carlin & Love, 2013; Hetherington & Rudolph, 2015; Huddy et al., 2015). Following a series of survey-based studies using association tests, trust games, and experiments, (Iyengar & Westwood, 2015) found that participants were just as likely to discriminate against each other based on partisan cues as they were based on racial ones. Similar trends have been observed in several European democracies, despite large differences in their political systems and the fact that they vary greatly in strength of social and religious cleavages. In the UK, Belgium, Spain, and Portugal, partisan prejudice — including unwillingness to cooperate with other partisans and reduced social trust — now trumps other forms of racial, religious, linguistic, and ethnic bias (Martini & Torcal, 2016; Westwood et al., 2017) and so across political parties. Using a similar methodology, Murray, Plagnol and Corr (2017) showed that newly formed "pro-Leave" and "pro-Remain" Brexit identities had a significant effect on

social behaviour in a mini-dictator game: participants were more likely to discriminate against those with an opposing identity than towards their fellow group members. Growing hostility between partisan poses evident challenges to civic life, as citizens lose the inclination to proactively engage with one another. A better understanding of the dynamics and mechanisms underlying affective polarisation thus seems more pressing than ever.

The role of identity salience

A number of factors might be contributing to partisan animosity. One of most important factors identified in the literature is partisan identity salience. The more salient a group identity, the more attached people feel to their own faction, increasing the likelihood that they will behave towards members of the out-group on the basis of their own identity (Hogg, 2003; Rogowski & Sutherland, 2016). There is already evidence that strength of party identification predicts individual's beliefs and affective evaluations over co-partisans in the US (Mason, 2015; Mason, Huddy, & Aaroe, 2011). Extending this to the British context, we would therefore expect that those with the strongest allegiance to their political party are the most likely to display biased perceptions of their political rivals (Iyengar et al., 2012) which leads us to the following hypothesis:

> *H1: Strength of party affiliation drives negative partisan affect*

Recent scholarship also emphasises the convergence of ideological and social identities as a driver of affective polarisation. Over the last 50 years, partisans have become increasingly "sorted" in the Unites States, meaning that their positions on issues (e.g. conservative) increasingly matches the party or ideology with which they identify (e.g. Republican). Many scholars argue that this decline in cross-cutting identities likely hinders exposure to diverse viewpoints thus leading people to view members of other parties as more socially distant and extreme than they really are (Levendusky & Malhotra, 2016b). Others have demonstrated that people with the most consistent partisan and ideological identities are more readily hostile to their political counter-parts contributing to affective polarisation (Mason, 2015; Mason, 2018b). In our analysis, we would therefore expect that:

> *H2: Increased ideological "sorting" drives negative partisan affect*

Beyond spill overs from other forms of polarisation, several features of our contemporary informational environment could explain higher levels of partisan animus. Media offerings abound in

the digital age. Aside from a wide selection of non-partisan sources, it is increasingly easy for users to access congenial news that reinforce their pre-existing beliefs (Gentzkow & Shapiro, 2011). Therefore, one way in which internet and social media could be exacerbating partisan animosity is by driving exposure to partisan cues in coverage about politics (Malhotra & Levendusky, 2013). There is ample evidence that mere exposure to partisan media makes audiences' partisan identities more salient (Horwitz & Nir, 2015; Knobloch-Westerwick & Kleinman, 2012; Levendusky, 2013) and can stoke rivalries between political groups. Furthermore, research shows that voluntary exposure to ideologically slanted news decreases trust in the opposition, boosts partisan animosity and causes partisans to engage in politically motivated reasoning (Garrett, Weeks, & Neo, 2016; Garrett et al., 2014). Likewise, partisan rhetoric accentuates perceived differences between parties, which has been shown to reinforce negative out-party evaluations. Finally, as people spend more time reading news online and on social network sites, they are also likely to come across polarising content in the form emotionally-charged and uncivil partisan comments — all of which has been shown to elicit negative political emotions that drive citizens further apart (Gervais, 2015; Suhay, Bello-Pardo, & Maurer, 2018). The toxic nature of online interactions is thus likely to be another factor driving affective polarisation.

If digital technology is often pointed to as a driver of polarisation in the US, the relationship between the two is still highly disputed. Drawing on right-of-way regulations, for instance, Lelkes Sood, and Iyengar (2017) find that access to broadband slightly increases partisan hostility. Other scholars, on the other hand, show that social media induces political moderation by boosting exposure to alternative viewpoints (Barberá, 2014). In light of such disparate findings, it is too early to conclusively determine how internet and social media impact affective polarisation. Insofar as this question has not been investigated in the UK, it is here posed as a research question:

RQ: Is there a plausible relationship between frequent internet and social media use and affective polarisation?

RESEARCH DESIGN

Data sources

For our study, we use survey data from two main sources: the British Elections Study (BES) and the Comparative Study of Election Systems (CSES). The CSES is a collaborative research project that conducts post-election surveys to measure a number of political attitudes and behaviours in a wide

array of countries around the world. We used Modules 2 (2005) and 4 (2015) of the CSES. The BES analyses the results of British elections and compile responses on a number of demographic, political, and social items. Panel studies follow survey respondents over time in multiple waves of data. Around 30,000 respondents were interviewed in each wave of the 2014-2018 study, with a "core" representative sample of approximately 20,000 respondents established each time for the purposes of cross-sectional analysis. The total sample size is nearly 49,000.

Although these surveys are probably the most comprehensive of their kind, they do suffer from several notable limitations. First, data are often incomplete, especially on demographic covariates of interest such as income. This restricts our ability to control for potential confounders in the explanatory portion of our analysis. Second, the authors of the survey have made some anachronistic choices about which parties to track and which to ignore. For instance, all participants were asked to rate their feelings on the Welsh national party Plaid Cymru, while none were asked about the United Kingdom Independence Party (UKIP), even though the latter outperformed the former by about an order of magnitude in the last two general elections. For the sake of continuity, have elected to restrict our focus here to the three largest parties in UK politics over the last 20 years, namely the Labour, Conservative, and Liberal Democratic Parties. The omission of UKIP means we are almost certainly underestimating the true extent of affective polarisation in contemporary UK politics.

Perhaps most troubling, there are seeming inconsistencies in the data, including several thousand self-identifying partisans who rate opposing parties more highly than their own. It is plausible that in some cases this reflects a genuine feeling of disillusionment with one's own party, coupled with a newfound interest in another. But close inspection suggests that in at least some instances, it is more likely that respondents simply did not understand the question and answered incorrectly. Because any effort to systematically remove these individuals would be irreducibly subjective, we have decided to include them in the following analysis lest we introduce some new bias into the results. For future studies, however, it may be preferable to gather more complete data on a smaller number of participants and ensure that answers reflect their true feelings about the relevant parties.

Measures

1. Affective polarisation

Using multiple survey data, we first assess the extent to which partisan's dislike of each other has changed in the UK between 2005-2018. Here we follow Iyengar et al. (2012) and Gentzkow (2016) in

using self-reported feeling scores from CSES and BES given to a wide range of political parties to evaluate how respondents' feelings towards other parties and their members have evolved over time. "Feeling thermometer" ratings are the most widely used measure of affective polarisation in the literature (Lelkes et al., 2018) and typically ask respondents to evaluate political parties on a 10-point scale ranging from 0 (strong dislike) to 10 (strong like) (see Appendix B for the exact wording of this question in both questionnaires). In the US, affective polarisation is calculated by computing the differences in thermometer scores given by Republicans and Democrats towards their own and the other party. Affective polarisation is most pronounced when partisans give overwhelmingly positive evaluations of their own party and negative evaluations of the opposite party (Iyengar et al., 2012). In multiparty systems, however, there is a clear need for an alternative measure that accounts for more than two relevant partisan groups.

Most measures of affective polarisation tend to aggregate subject-level data to party- and/or nation-level estimates (Reiljan, 2016; Lauka et al., 2018). This procedure makes it easier to observe large-scale trends over time; however, it obscures changes in the variance of those estimates, which may be of inherent interest. Moreover, it makes it impossible to examine potential associations between subject-level variables, such as age and education, and an individual's personal hostility toward opposing partisans. For this reason, we focus on subject-level data in an effort to better understand what drives people to become affectively polarised.

We propose a new measure, the *personal hostility index* (PHI). An individual's PHI is calculated by taking the difference between their thermometer rating for their own party and a weighted average of their thermometer ratings for other parties, with weights equal to the vote share of those parties in the most recent general election. A total of 42,431 respondents provided thermometer rankings for each of the three major parties in our study.

For comparison, we also compute two different measures of mass affective polarisation in multi-party systems: an affective polarisation index (AP) and mass affective polarisation index (MAP). The first, proposed by Reiljan (2016), aims to capture divergences in partisan affect towards a wide range of political actors based on thermometer ratings. We follow his operationalisation and first divide respondents by partisan affiliation before computing average like and dislike scores assigned by each group to their own party and to every other party. This is consistent with Esteban and Ray (1994)'s definition, according to which polarisation depends on both the degree of in-group homogeneity (favouring one's own party) and between-group distance (expressing negative sentiment towards others).

$$AP_{Party\,A} = \sum_{i=B}^{n} [\,(Like_{Party\,A} - Like_{Party\,i})\;X\; \frac{(Vote\;share_{Party\,i})}{(1 - Vote\;share_{Party\,A})}\,]$$

$$AP = \sum_{j=A}^{n} (AP_{Party\,j}\; X\; Vote\;share_{Party\,j})$$

Where *Like* $_{Party}$ stands for the average feeling scores given to each party, *Vote share* $_{Party}$ is the vote share of each party in the previous General Election, and *n* the total number of effective parties.

Starting from the premise that polarisation leads to the emergence of bimodal distribution, Lauka and his colleagues (2018) advance an alternative measure of affective partisan polarisation based on positive and negative evaluations each political party within the political system. This involves capturing the absolute and relative size of two maximally distant groups, based on their level of rejection and support of political parties at a given point in time, producing the following formula:

$$MAP = \frac{\sum_{i=1}^{n} Like\;p_i * Dislike\;p_i}{n * 0.25}\;{}^{[1]}$$

Where *Like p* is the like proportion, *Dislike p* is the dislike proportion and n is the total number of effective parties. In computing both polarisation measures, we restricted the sample to valid non-missing responses to the thermometer feeling question.

2. *Ideological sorting*

Partisan sorting based on ideological identity is substantially different from ideological sorting based on policy outcomes (Mason, 2015). Here we construct a measure of partisan ideological sorting by looking at the extent to which ideological attachments (i.e. where respondents place themselves on the political spectrum, represented by a 10-point "left" or "right" scale) correlates with ideology. Left-right items are a standard tool in public opinion research that have long been used to infer respondents' ideological leanings. As several scholars note, in a multi-party context, this would be more accurately

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[1] Lauka et al (2018) note that since it is possible for respondents can like more than one party, the "maximum score per country would be 0.25 times the number of parties (as half of the population at each end of the spectrum would represent 0.5 x 0.5)" (2018: 115)

captured by two axes (left/right and economic/cultural) (Hooghe et al. 2012). Unfortunately, in that regard we are restricted by the format of the survey questions. We follow Mason (2015) and adapt her operationalisation to our dataset by first constructing an identity alignment score, taking the absolute difference between a 10-point ideology item score and the 10-point ideological self-placement scale. The resulting value is reversed coded so that high values correspond to a high degree of overlap between partisan and ideological identity and low values represent weak and conflicted ideological identities.

3. *Partisan strength*

In all four datasets, respondents were asked to identify their party affiliation before expressing their degree of attachment particular party. Potential responses included Labour, Conservative, Lib-Dem, UKIP, SNP/PC, Green, Other or None. Responses are coded on a 3-point scale of partisan strength, ranging from weak partisan to strong partisan.

RESULTS

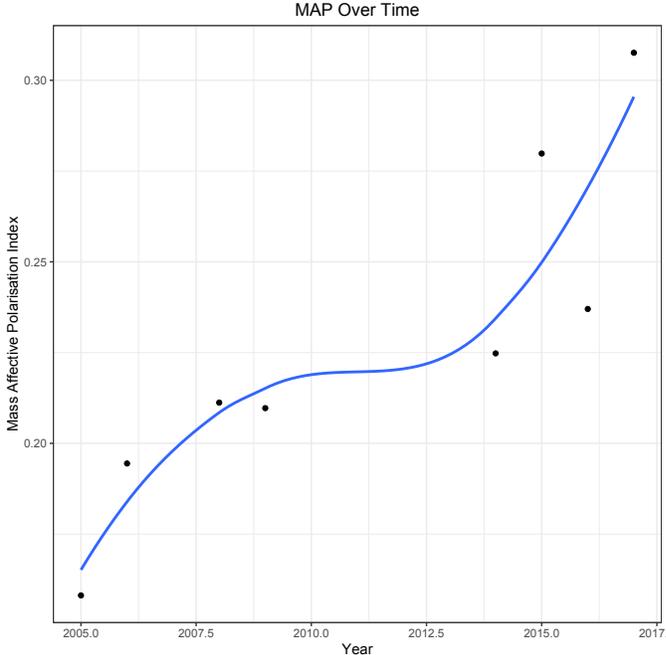### I. Affective Polarisation Indices
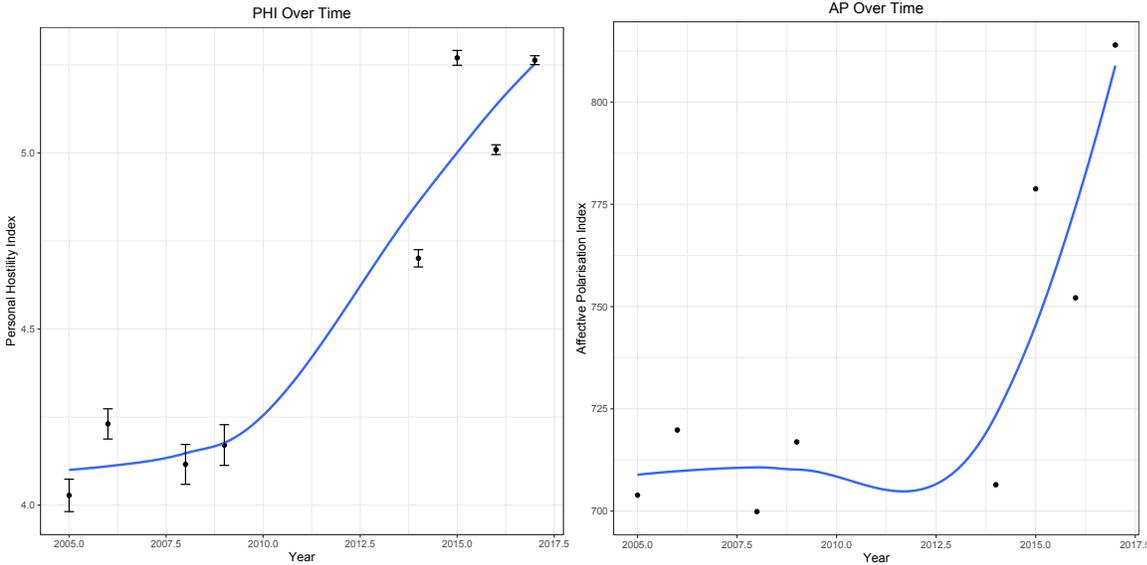
Fig. 1. The evolution of affective polarisation over time in the UK by each of the three measures described above. LOESS curves are fit to the data with span = 0.75.

Our results clearly indicate a substantial increase in affective polarisation in the UK over time. Units vary across indices, but the trend is clear by any measure. Moreover, the PHI provides not just point estimates but standard errors, showing that the uptick in personal hostility among partisans has been accompanied by a squeeze in the statistic's variance. This suggests a uniformity to the trend, as respondents are more likely to cluster toward extreme like of their own party and dislike of the opposition.

Using the distance matrix computed as an intermediate step in the Reiljan's affective polarisation index, we visualise the inter-party affective distance between all UK political parties for each year in our dataset.
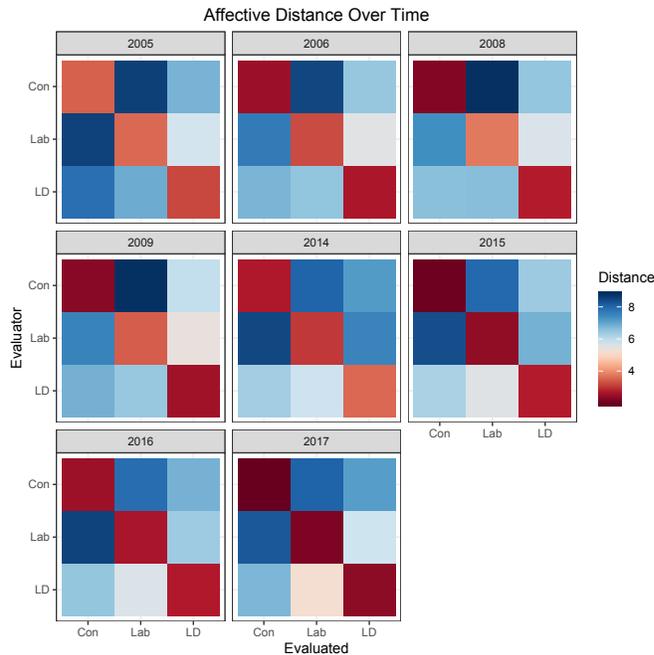
Fig. 2. Inter-party affective distance matrix

We find a steady trend toward more acute distances between parties and affinities within parties over time, further reinforcing the findings of our plots above.

II. Cross-sectional model

Having documented these changes in affective polarisation, we proceed to consider possible explanations for this trend. We restrict our analysis to cross-sections from the BES and control for the following demographic variables: age, gender, education, and attention to politics. Observations are weighted using weights provided by the BES. For this portion of the analysis, we use multivariate linear regressions. Note that our goal here is not to build an accurate predictive model – for that we would probably want to train a machine learning algorithm on some large number of variables – but rather to explore the relative contributions of various demographic and socio-political predictors to an individual's PHI.

In addition to the aforementioned control variables and weights, we added partisan strength to the regression model to evaluate the impact of this feature after conditioning on other relevant information. The results of this model are summarised in Table 1 below.

Table 1

	Coefficient	Std. Error	t-statistic	p-value
Intercept	3.53099846	0.06985698	50.5461059	0
age	0.01519471	0.00063861	23.7935946	1.12E-124
genderMale	-0.1664721	0.0210028	-7.9261858	2.29E-15
education	-0.3783402	0.01751044	-21.606551	3.20E-103
polAttention	0.60879302	0.01331698	45.7155361	0
partyIdStrength	-0.1405497	0.02084692	-6.7419886	1.57E-11

All coefficients, including the model intercept, are highly significant at conventional type I error thresholds. However, this has more to do with the large sample size than anything else. The coefficient of determination is $R^2 = 0.04$, and the model F-statistic is 685.5 on 5 and 75594 degrees of freedom, $p < 0.001$. These indicate minor but persistent effect sizes.

Among the control variables, we find that age and political attention are positively associated with PHI, while education is negatively associated with hostility. Interestingly, men are less likely than women to be personally hostile toward opposing partisans, all else being equal. Once these variables have been controlled for, we find that partisan strength is inversely correlated with PHI. This is a surprising result, which directly contradicts our first hypothesis. A simple univariate test renders a similar result (rho = −0.004, p = 0.130), indicating that the negative relationship is not a result of confounding. Personal hostility is not driven by partisan strength according to this data and model.

Next, we build a similar model, replacing partyIdStrength with sorting, defined above. Results for this regression can be found in Table 2.

Table 2

	Coefficient	Std. Error	t-statistic	p-value
Intercept	5.47035665	0.11089769	49.3279604	0
age	0.01565101	0.00118397	13.21914	1.03E-39
genderMale	-0.1177984	0.03830112	-3.0755858	0.00210396
education	-0.4725654	0.02826648	-16.718226	2.77E-62
polAttention	0.62583877	0.02825847	22.1469458	2.78E-107
sorting	-0.3716725	0.00772243	-48.128985	0

The statistics for this model are largely the same as those summarised in Table 1. We find here that ideological sorting has an even stronger negative relationship with PHI than partisan strength after

controlling for all covariates. The relationship is very significant in a univariate test as well (rho = − 0.275, p < 0.001). These results suggest we cannot rule out the null hypothesis that ideological sorting is not a driver of affective polarisation in UK politics. Together with the results from model 1, these findings weigh heavily against two of the most common and intuitive explanations frequently provided for the phenomenon observed above–Britain's evident increase in affective polarisation and personal political hostility over the course of the last 20 years.

III.   Demographic trends

If neither the strength of partisan affiliation nor ideological sorting is behind the recent rise in affective polarisation, then what is? One popular hypothesis is that the internet and social media may be driving these trends. Unfortunately, we do not have sufficient data from the BES and CSES surveys to formally test this theory. Moreover, survey data is probably ill-suited to this research task in any event. This brand of causal inference is best made via randomised control trials and/or other experimental methods. That said, we can at least trace some patterns in the development of PHI and British social media use in the last two decades.

To do so, we employ several datasets: data from the Office of National Statistics (ONS) about internet and social media use per age group (2011-2018) and the 2013-2018 Reuters Digital News Reports data on the frequency of UK citizens who use internet and social media use for the purpose of news seeking, per age group and political party. The only years that overlap between these datasets and our survey data are 2014-2017, and so we restrict our focus here to those last few years for which data are available. Remarkably, we find that PHI is negatively correlated with every measure of internet activity recorded in these data (see Fig. 3). This is most likely because older internet users are less likely to use social media or read news online, yet more likely to be affectively polarised on average.
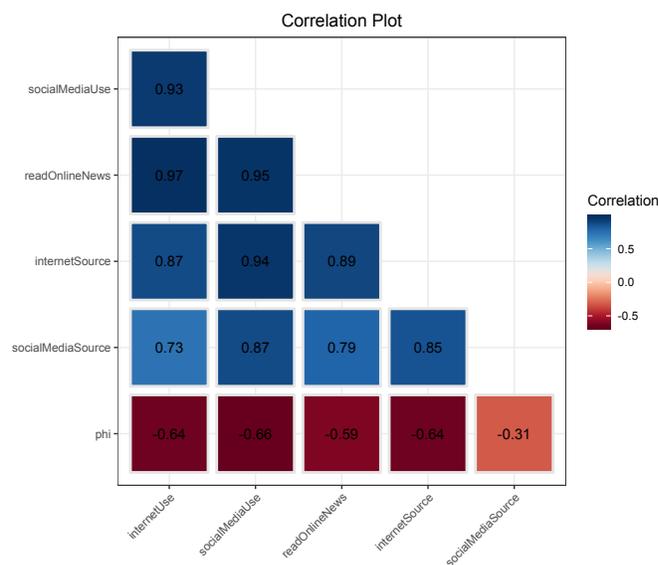
 Fig. 3 Correlation between internet and social media use trends and personal partisan hostility. Where *internetUse*, *socialMediaUse, internetSource, socialMediaSource* and *readOnlineNews* respectively correspond to frequent internet and social media use (several times a day), using internet and social media as a source of news, and using the internet to read or download online news, newspaper and magazines in general.

CONCLUSION

Together, these results leave us at something of an impasse. The most comprehensive survey data available for the UK clearly indicate that there is an important, growing phenomenon occurring in the populace – yet those same surveys are silent on possible explanations. More research is thus urgently needed in this field to better understand the factors that drive affective polarisation in British politics. Our study is also limited in other ways. Due to the nature of our dataset, we chose to restrict our analysis to respondents with a clear partisan affiliation. Given the decline of traditional party membership in a number of advanced democracies in recent years (Dalton & Wattenberg, 2002), however, future studies could extend this work by exploring whether similar trends in intergroup hostility emerge from "ideological identities" (Malka & Lelkes, 2010), as scholars show it is also possible to form social identities around ideologies and opinion-based groups — as distinct from the substantive set of policies with which these are attached — that are just as potent as partisan identities in distorting information processing (Malka & Lelkes, 2010) and generating bias against ideological opponents (McGarty et al 2009).

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Appendix A.

A) Total number of respondents with a party affiliation per data source

Data Source	2005	2006	2008	2009	2014	2015	2016	2017
CES	3021	5830	3626	3026	47663	47544	49898	73585
BES	854	-	-	-	-	1557	-	-

B) Summary statistics

Descriptive statistics for age and ideological self-placement

	Valid N	Missing (NAs)	Mean	SD	Min	Max
Age	236604	0	52.244	15.927	15.000	97.000
Ideological self-placement (0 = right, 10 = left)	85469	51135	5.046	2.537	0.000	10

Frequency of age group (%)

	Frequency	Percentage
16-24	17908	7.57
25-34	26468	11.19
35-44	33478	14.15
45-54	42731	18.06
55-64	59423	25.12
65-74	47501	20.08
75 +	9078	3.84
Valid Total	236587	100.00
Missing	17	0.01
Total	236604	100.00

Frequency of gender (%)

	Frequency	*Percentage*
Female	117385	49.61
Male	119219	50.39
Valid Total	236604	100.00
Missing	0	0.00

Frequency of annual household income (%)

	Frequency	*Percentage*
Under £10,000	10274	4.34
£10,000-£30,000	47311	20.00
£30,000- £50,000	29997	12.68
£50,000-£70,000	11872	5.02
Over £70,000	9043	3.82
Valid Total	108497	45.86
Missing	128107	54.14
Total	236604	100.00

Frequency of highest education level (%)

	Frequency	*Percentage*
No formal qualifications	149217	63.07
Diploma, professional certificate or equivalent	48313	20.42
University degree	17269	7.30
Valid Total	214799	100.00
Missing	21805	9.22
Total	236604	100.00

Frequency of party affiliation (%)

	Frequency	*Percentage*
BNP	770	0.33
Conservative	82981	35.07
Green	7703	3.25
Labour	87813	37.11
Lib-Dem	21941	9.27
None	1130	0.48
Other	2726	1.15
PC	1757	0.74
SNP	12638	5.34
UKIP	16473	6.96
Valid Total	235932	99.70
Missing	672	0.28
Total	236604	100.00

Frequency of attention to politics (%)

	Frequency	*Percentage*
None	6843	2.89
Low	11632	4.92
Medium	70166	29.66
High	88677	37.48
Valid Total	177318	74.95
Missing	59286	25.06
Total	236604	100.00

Appendix B. Survey questions for feeling thermometers

"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." (CSES, 2015)

" How much do you like or dislike each of the following parties?" (BES, 2013-2017)