Right-Wing Populism, Social Media and Echo Chambers in Western Democracies

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Abstract: Many observers are concerned that echo chamber effects in digital media are contributing to the polarization of publics and in some places to the rise of right-wing populism. This study employs survey data collected in France, the United Kingdom, and United States (1500 respondents in each country) from April to May 2017. Overall, we do not find evidence that online/social media explain support for right-wing populist candidates and parties. Instead, in the USA, use of online media decreases support for right-wing populism. Looking specifically at echo chambers measures, we find offline discussion with those who are similar in race, ethnicity, and class positively correlates with support for populist candidates and parties in the UK and France. The findings challenge claims about the role of social media and the rise of populism.

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Introduction

The rise of populism is commonly viewed as one of the most important problems in the state of democracy worldwide. Many observers, especially journalists, have suggested that the spread and effectiveness of populist movements has been aided by social media. There are a number of plausible links between social media and populism of all varieties, such as the role of social media as tools for mobilization. These tools may be especially impactful where established, mainstream organizations do not dominate recruitment and messaging, as is often the case with populist campaigns for office. Another related link involves the content of political communication. Social media can facilitate in-group communication and out-group demonization, which fuels polarization and in extreme cases, support terrorism. Social media can provide a means for extremist candidates and parties to by-pass mainstream elites and news media and communicate directly with citizens, or in other ways to raise the salience of political messages challenging established political leaders and news systems (Bartlett, Birdwell, & Littler, 2011).

The concept of "echo chambers" is sometimes employed to explain the linkage between social media and populism. The "echo-chamber" argument, though not well developed conceptually, is intended to convey the idea that people are exposed either largely or exclusively to pro-attitudinal communication. Such conditions could support populist messages that entail mistrust of others, rejection of expertise and reasoned debate among different views, and emphasis on the popularity of people or ideas over substance of policy proposals. "Echo chambers" can insulate audiences from truth, and post-truth politics appear tied to right-wing populism (Suiter, 2018; Waisbord, 2018). So, on this view, one threat to democracy from social media is that they facilitate echo chamber effects that fuel populist

political practices. Echo chambers can be formed in reaction to feelings of being attacked, a perspective that populist leaders tend to perpetuate, which can manifest at the citizen level. These feelings may motivate the formation of echo chambers. Finally, echo chambers are enabled through social media's affordances. People can be selective in connecting to similar others and finding information consistent with own beliefs, which is important as many populist groups use social media to communicate and share information with their supporters.

 Despite the plausibility of this line of reasoning, there is little evidence for large-scale, social media-based echo chamber effects specifically associated with *citizens*' support for populism. However, relatively few studies have been undertaken so far, and often these studies are limited to single countries, leaving questions about whether the effects are due to social media or some other country-specific explanation, such as electoral arrangements, immigration pressure, and economics. More evidence may change the picture. On the other hand, there are some reasons to doubt parts of the echo chamber-populism thesis. To the extent that echo chamber effects exist, they could be polarizing in all directions, affecting not only right-wing populist movements but various movements on the left as well as differences among traditional political parties and groups. It is also the case that media diets may be more diverse in the real world than it would appear from lab experiments on selective exposure or from observing only the content of one social media stream, rather than a citizen's whole communication network.

In this study, we take on the question of citizens' experiences of echo chamber effects and support for populist candidates and parties. We focus on right-wing populism, because it is the most widespread and has produced the most electoral victories and the greatest concerns about threats to democracy. To address the relationship between "echo chambers" and populism, we first briefly develop a way to conceptualize and measure echo chamber effects. To test for a linkage between echo chamber effects and support for populist candidates and

parties, we draw on data collected in three countries: France, the United Kingdom, and the United States. This study offers novel comparisons among the three countries, which held national elections within seven months of each other. In all three countries, support for populist-style, right-wing candidates and messages have grown substantially in recent years, and all three countries are part of broader concerns about "echo chambers" in politics. In France and the UK, populist parties were on the ballot, while in the US Trump ran in a populist fashion.

Our analysis provides little support for the claim that echo-chamber-type uses of social media *specifically,* and other online activities *in general* are associated with support for right-wing populist candidates and parties. The only indication we can find of an echo-chamber-populism connection is offline, not online, in the form of homogeneous discussion networks in the UK and France.

Populism & "Echo Chambers"

The root causes of the populist movements of recent years have little or nothing to do "echo chambers" or social media effects. These movements are connected to historic developments in human affairs, especially those associated with globalization, immigration, economic strain, inequality, and cultural changes. While the reasons for these movements vary across countries, there are important commonalities in the content of political messages associated with populism, and in un-deliberative style of political communication. Reinemann et al. (2016: 3) describes populism as "appeals to the people, talking about the people, putting the people and their opinions first in political decisions, or symbolically and rhetorically uniting with the people by talking about "we" and "us"."

Populist appeals may be connected to left-wing or right-wing ideology, or centrist positions, but they tend to share the view that legitimacy is located with "the people" not

elites (Engesser et al., 2017; Groshek and Koc-Michalska, 2017; Hubé and Truan, 2016; Jagers and Walgrave, 2007). Norris and Inglehart (2018, 5-6) offer three examples of right-wing populist rhetoric in the three countries of interest in the present study. From Donald Trump: "On every major issue affecting this country, the people are right and the governing elite are wrong;" from Nigel Farage: "This will be a victory for real people, a victory for ordinary people, a victory for decent people." And from Marine Le Pen: "Free the French people from an arrogant elite." Right-wing variations on populism add to anti-elitism, nationalism and hostility to immigration (Hubé and Truan, 2016; Norris and Inglehart, 2018; Stanyer et al., 2016). Right-wing variants of populism have been the most successful and have generated the most concerns over the western democracies, albeit Mudde and Kaltwasser (2017) also point out the threat posed by populist left parties in Latin America, specifically Venezuela and Bolivia.

While the origins of populist movements are far deeper and more extensive than just changing media contexts, echo chamber effects, especially in social media, are sometimes seen as contributors (Engesser et al, 2016; Gerbaudo, 2014; Sandelind, 2014). This is a very common observation of journalists and political observers outside the academy. Within the academy, scholars have observed that echo chamber effects are especially facilitative of populist-style, specialized messaging outside of mainstream news and party elites (Engesser et al., 2017). Norris and Inglehart (2018) suggest that when people feel attacked, as populist elites claim to be, they may retreat into groups of like-minded people. Digital media create conditions for the formation and maintenance of homogenous networks, and this may be especially attractive among populists and their message of "us vs. them" (Engesser et al., 2017). Waisbord (2018) also draws a connection between populism and so-called "post-truth" politics, in which facts are devalued over personality, loyalty, and thin ideology. "Echo

chambers" are generally understood to involve the insulation of people from challenges to existing beliefs, and therefore in some cases from truth.

There has been relatively little empirical research to support the thesis that a special connection exists between support for right-wing populism and echo chamber effects. Use of social media by populist elites has been shown to vary by period and country (Esser et al., 2016; Haller and Holt, 2018; Jacobs and Spierings, 2018; Waisbord and Amado, 2017). The relationship between social media use and right-wing populism may not be obvious. Jacobs and Spierings (2018) find populist politicians in the Netherlands are *less* likely to use Twitter, and when they do, they post no more or fewer messages than others; they are however more selective about friending, in line with the homophily argument about populists. In a study of support for Trump during the US primaries, Groshek and Koc-Michalska (2017) show that citizens' different uses of social media are related in different and sometimes subtle ways to support for populist candidates in the Republican party. They find active use of social media for politics, which might be expected to be connected to "echo chambers," is inversely related to support for Republican populists, while some uncivil uses of social media were connected to support for populist-style candidates. As such, the connection between social media, echo chambers, and right-wing populism has not yet been supported by evidence. Part of the reason for this is conceptual.

"Echo Chamber" as a Concept

Commentary on "echo chambers" in social media has been plagued by definitional problems. Whether "echo chambers" is simply a broad heading under which mechanisms such as selective exposure can be categorized, or whether it is a concept that can itself be operationalized has not been well-articulated by any single source, including Sunstein's (2001) book by that title. Most authors use the term in some way to refer to people's exposure

to pro-attitudinal communication. Some emphasize informational practices, namely filter bubbles (Dutton, Reisdorf, Dubois and Blank, 2017; Pariser, 2011), personalized content (Sunstein, 2001), and selective exposure (Garrett, 2009). Others emphasize discussion or discussion practices (Kim et al., 2013; Barbera et al., 2015; Gronlund, Herne, and Setala, 2015). Political similarity is clearly part of all approaches, although this is variously approached as homophily (Boutyline and Willer, 2017; Engesser et al., 2017; Barbera et al., 2015), homogeneity (Groshek and Koc-Michalska, 2018), like-mindedness (Dutton et al., 2017; Norris and Inglehart 2018; Sunstein, 2001) and lack of diversity (Bakshy et al. 2015).

We view well-known phenomena such as selective exposure and discussion homophily as perfectly adequate theoretically, but subject to ambiguity if relabeled individually as "echo chambers." The more coherent and distinct use of the echo chamber concept is to refer to *political similarity in both information and discussion.* This encompasses people's engagement with ideas, facts, and values, and also with one another. This approach clarifies "echo chambers" by identifying two dimensions, each of which have robust theoretical support, but it does not resolve the question of extent.

Are echo chambers a matter of degree or a matter of exclusivity? We are aware of no operational claim about the degree of each required for an echo chamber to exist. While tendencies toward selective exposure and homophily in discussion networks are easily shown in the lab and with survey data, real world exposure to political communication may be more diverse and echo chamber effects simply a matter of degree (Dubois & Blank, 2018; Fletcher & Nielsen, 2017; Gentzkow & Shapiro 2011; Webster, 2014). A citizen may have highly homophilous discussion networks in social media and among strong-tie friend networks, but attend to mainstream news and also be exposed to political difference in the workplace. Studies looking at only one dimension, or one part of one dimension – such as Twitter – are likely to mis-estimate a person's overall confinement to politically similar information and

discussion. We doubt that a threshold of similarity constituting an "echo chamber" can be resolved as a theoretical matter and are sceptical that the concept is useful in that way.

Given conceptual problems with "echo chamber" as a matter of degree, a good approach is to define it as occurring when someone reports being exposed *exclusively* to politically similar information and discussion. This is a strong form of the proposition: people reporting that they never talk with people who disagree with them and also never receive political information that challenges their viewpoints. Without question this strong approach is consistent with the popular concept of chambers that exclusively echo and do not admit countervailing messages. There are theoretical reasons for scepticism that many people are likely to report this kind of experience of political communication. The hostile media effect should produce perceptions that some news is biased counter-attitudinally. Selective exposure is not an absolute effect but a bias, and likewise the degree of political homophily in discussion varies with setting.

More important theoretically is the question of whether echo chambers understood this way are associated with right-wing populism. We find little theoretical rationale for expecting that exclusively similar information and discussion should be associated with right-wing populism as opposed to other ideological viewpoints. Preferences for selective exposure reflect a cognitive bias associated with belief preservation and avoidance of cognitive dissonance and has no special association with any particular beliefs. Likewise, homophily in discussion networks is a broad phenomenon also associated with ideological thought generally. It may be that echo chamber effects are associated with multiple positions on the ideological spectrum, as a product of attitude strength generally rather than an orientation toward populism. We approach this problem as our first research question.

RQ1: To what extent are echo chamber effects associated with support for right-wing populist candidates and parties?

The Role of Media Exposure

The argument so far is that echo chamber effects might plausibly be associated with populist support among citizens, though it is unclear whether the association between ideological commitment and echo chamber effects is greater for populism than for other ideologies. Our next concern is the role of media in this picture. The bulk of research has focused on the potential of online media (and specifically social media) to cultivate echo chamber effects. There are strong claims that social media algorithms and affordances can contribute to "echo chambers." For example, Dubois and Blank (2018: 729) argue that "Through opportunities to select information and communities which support existing beliefs as well as through algorithmic personalization, some worry that the Internet may make it easier for citizens to find themselves in an echo chamber" (also see Flaxman et al. 2016).

The evidence for this line of reasoning has been a matter of debate and is at this point quite mixed (Flaxman et al., 2016). Some scholars have demonstrated that online networks, specifically Twitter ego networks, are greater in size and have wide geographical distribution, leading to a greater number of weak ties (Bountyline and Willer, 2017; Takhteyev et al., 2012). These wider networks work against the formation of "echo chambers." However, using Twitter trace data, Barbera et al. (2015) found variation in the extent of this effect as a function of the topic of discussion. For the government shutdown and marriage equality in the US, most retweets occurred within ideological groups, and liberals were more likely to engage in cross-ideological discussion (Barbera et al., 2015). For other issues, such as the Boston Marathon bombing, the 2014 Super Bowl, and the 2014 Winter Olympics, there was some cross-ideological discussion (Barbera et al., 2015). In a widely noted paper, Messing and Westood (2014) reported early findings that heterogeneity in social networks on an artificial social media tool was strong enough to overcome partisan selective exposure preferences.

Bakshy, Messing, and Adamic (2015) reported that within Facebook, people's choices about news exposure entail more homophily than Facebook's own algorithmic presentation of content.

Consumption of traditional news media sources may also be associated with "echo chambers" and populism. Traditional news media try to enact a norm of balance in news coverage, which helps expose citizens to both sides of a story or political issue. As such, consumption of traditional news should counteract the formation of "echo chambers." Existing research on the UK demonstrates that greater media use decreases "echo chambers" (Dubois and Blank, 2018).

The relationship between traditional news media and populist candidates is important for other reasons. Populist discourse is characterized by an anti-media stance, in particular accusations that traditional media are biased against a candidate or party. In the United States, Trump claims that social media helped him when the "fake news" organizations/media elites were not giving him proper coverage. Haller and Holt (2018) report on similar patterns from PEGIDA: "liar media". Esser et al. (2016) highlight similar examples across Europe - populist candidates attack traditional media and accuse it of being part of the corrupt elite.

On the other hand, some argue that traditional media have been sympathetic to populism (Aalberg and de Vreese, 2016). Indeed, there is some evidence to suggest that populism benefits from traditional media's coverage. For example, Groshek and Koc-Michalska (2017) find that television-watching was positively associated with support for Trump during the US primaries. Aalberg and de Vreese (2016: 2) talk about populism needing the "oxygen of publicity" and media serves that role. Media may be complicit in the rise of populism, when they report on political actors' slogans giving visibility and legitimacy to these positions (Esser et al., 2016). Social media and traditional media are both culpable in allowing lies and rumors to spread instantaneously, contributing to a post-truth era (Suiter,

2018; Waisbord, 2018). Suiter (2018) argues that providing balance can lead to journalists foregoing their role as fact-checkers and revealing the truth. Instead, both sides are presented as differences in opinions (Suiter, 2018). In this way, media have levelled "opportunities for making any statements about reality that can potentially be deemed credible" (Waisbord, 2018: 20).

Aalberg and de Vreese (2016: 4) advocate exploring online versus offline media as distinct, because online media may, in some countries, offer a venue to ""crash" the established media gates" by challenging traditional news' agendas. Blogs and similar citizen journalism initiative could help fuel the popularity of populism online (Aalberg and de Vreese, 2016; Esser et al., 2016). For example, Facebook is important for PEGIDA in Germany, since the movement refuses to be interviewed by mainstream media and organizes its protest activities through Facebook (Haller and Holt, 2018). Esser et al. (2016: 11) argue that online media may be more receptive to populism, but systematic empirical research is lacking.

The arguments for a connection between both offline and online news media and support for populism are therefore plausible but mixed theoretically. This leads to two further research questions.

RQ2: To what extent is offline news media use associated with support for right-wing populist candidates and parties?

RQ3: To what extent is online news media use associated with support for right-wing populist candidates and parties?

Methods

Our data come from a survey conducted in the United States, the United Kingdom, and France. The survey was carried out on an online panel by Lightspeed Kantar Group using

quota sampling (gender, age, region, income/social class, and education). It was completed as a pre-electoral survey in France (April 5-13, 2017) and UK (May 2-12, 2017), and post-electoral in US (May 2-20, 2017) on the representative sample of citizens (n=1500 in each country). Lightspeed Kantar does not calculate a response rate from the quota sample, and instead reports weighting efficiency as an indicator of sample quality. Weighting efficiency has a mean of 99.1% across the three countries. The survey was conducted in US English, UK English, and in French.

Dependent variable: Support for Right-Wing Populist Candidates or Parties

To measure support for right-wing populist parties or candidates in UK and France, we adapted the Inglehart and Norris (2016) populism index based on the Chapel Hill Expert Study (CHES) data (Polk et al., 2017). We asked respondents for which party or candidate they are going to cast their vote in the next legislative (UK) or Presidential (FR) election: "*For which candidate/party are you most likely to vote in the next presidential/general election*?" Next we scored responses according to the nine-item Populism index (Inglehart and Norris (2016), on a scale from -5 (Populist Left) to 5 (Populism Right)) (see Table 1). For UK parties the original CHES 2014 survey was used for party identification, for France the same items on the candidates' programs were coded by a group of experts within the party program coding project (Vitiello, 2018). We employ the cultural populism scale from this approach.

[insert Table 1 about here]

The US does not have a right-wing populist party and so is not strictly comparable to the UK and France. So we employed support for Trump. This is a noisy indicator because many Republicans supported Trump out of partisan loyalty or for his views on particular policies not connected to populism, such as abortion or gun-control. However Trump ran in a

strongly populist style, emphasizing loyalty to him as an individual and making his signature issue opposition to immigration – both of which are consistent with the strategies of European populist parties and candidates. We asked US respondents "*In the last Presidential election in November 2016 Hilary Clinton ran on the Democratic ticket against Donald Trump for the Republicans. Do you remember for sure whether and for whom you voted in that election*?" Answers were recoded into a binary variable that captures support for Trump (0= voting for Clinton, or did not vote, or do not remember; 1= voting for Trump). The US also differs from France and the UK, because we lack the CHES measurement. For this reason, we focus our main comparison on the UK and France, and then consider how well the US picture conforms to the pictures in the other two countries. Given the structure of the dependent variable, we employ standard ordinary least squares regression for France and the UK and use logistic regression for US.

Explanatory variables

Discussion Component of Echo Chamber Effects. To measure the discussion component of echo chamber effects, we merge two questions *"In the past 12 months, how often have you talked about politics with the following people (not taking into account discussions online or through social media)? a. People of a different race or ethnicity, b. People from a different social class."* The questions replicate those used in Gil de Zuniga, Valenzuela, and Weeks (2016). Following this example, we asked about talking about politics "via social media" and "offline." This produced solid two-item scales (offline Cronbach α= .855, social media α=.919). Answers were recoded as dummy variables with 1 for those who *never* talk to people of different race, ethnicity or social class as being in echo chamber.

Information Component of Echo Chamber Effects. To measure the information component of echo chambers we employed two questions. The first was *"When you get*

political information <u>via traditional media</u> how often would this be media that represent a different point of view from yours." The other question substituted *"<u>via website or information portals</u>."* The two form a reliable scale (Cronbach's α=.829) where 1 for those repsondents who report never getting information that represents a different point of view from their own.

Media use. We included several measures of media use in order to increase our confidence that we have a solid understanding of respondents' information environments. We differentiated offline and online, as per Esser et al. (2016) recommendation. We measured offline media usage by indexing three questions on the frequency of using television, radio and print press for political information. We asked *"On a typical day, how much time do you spend on a. watching television news or programs, b. listening to the radio, c. national or regional daily that is delivered to your home or that comes from a newsstand, about politics and current affairs?"*. We measured online media usage with two items by asking *"On an average day, how much time do you spend a. using the internet for news about politics and current affairs, b. national or regional daily that you read online on a computer or a mobile device?".* Those two questions are rescaled into continuous variables from 1 (low) to 3 (high) level of media usage. We also controlled for having a Twitter account (0=no; 1=yes), because so much attention has been focused on Twitter as a potential source of echo chamber effects.

Control variables

As for control variables, we include gender, age, education, and political ideology, building upon existing work on populism (Inglehart and Norris, 2016; Norris and Inglehart, 2018; Stanyer et al., 2016). *Gender* is a dummy variable (women = 1). *Age* is a continuous variable (Table 2). Profession is a dummy variable (white collar employees = 1). *Education* is measured on a four-point scale (4 = collage education and above). As for political

dispositions, we measure political interest and political ideology. *Interest in politics* is

measured on a four-point scale (4 being those highly interested in politics). *Political ideology*

is measured on a ten-point scale (-5 extreme left to 5 extreme right).

[insert Table 2 about here]

Results

Before examining echo chamber effects, we explore the degree to which "echo chambers"

occur in each of our countries. Approximately 38% of the American sample reported

discussing politics exclusively with people who were similar to themselves in race, ethnicity

or social class, and there is no difference between the offline and via social media responses

(see Figure 1). In United Kingdom 49% of respondents and in France 42% reported

discussing politics offline exclusively with people who were similar to themselves in race,

ethnicity or social class. For social media, the values are 45% in the UK and 49% in France.

Approximately 24% of both the American and French samples reported that they never

received information about different viewpoints, and in the UK about 29%.

[Figure 1 about here]

We report separate models for each country in order to facilitate comparisons across

the countries. As Table 3 shows, model fit is good, with explained variance moderate to high:

25.5% for the US, 27.7% for the UK, and 45.2% for France. Among control variables, age has

the expected relationship in all three countries: older citizens are more supportive of right-

wing populist parties and candidates. Not surprisingly, right-wing ideology is as well.

Education is inversely correlated with support for populism in the UK and France, but not

significant for Trump support in the US. This likely reflects the fact that Trump was the

candidate of one of the two major parties in the US, rather than the leader of a populist party,

as we discuss in the methods section.

[Table 3 about Here]

Research Question 1 addresses the role of echo chamber effects in explaining support for right-wing populist candidates and parties. As Table 3 shows, our measure of the informational dimension of echo chamber effects is not predictive of support for right-wing populist candidates in any of the three countries. Exposure to pro-attitudinal news is not predictive of support for Trump in the US or populist candidates in the other countries.

We measured the discussion dimension of echo chamber effects two ways. Our measure of pro-attitudinal discussion *through social media* is not associated with support for populist candidates in any of the three countries, while discussion in the form of *offline* discussion is predictive in the UK and France but not the US. In the UK, offline discussion with homogeneous discussion partners is positively associated with support for right-wing populism (b = .289, p = .003). In France, offline discussion with homogeneous discussion partners is also positively associated with support for right-wing populism (b = .272, p = .048). Offline discussion with homogeneous discussion partners is the strongest predictor of support for right-wing populism in both countries, after right-wing ideology and age.

Research Questions 2 and 3 relate to general offline and online news media use. For offline media, we find no relationship in any of the three countries. For online news media use, we find no relationship in the UK or France, and an inverse one in the US. After right-wing ideology and age, online media use is the strongest predictor of support for Trump, in the negative direction (b = -.376, p = .007). Online media is associated with lower support for Trump. We therefore find little support for the popular idea that social media played a special role for Trump supporters. While Trump himself clearly used Twitter in special ways, we do not see evidence of something comparable among his supporters. We tested multiple measures of online/social media and found only the negative association between online media use and support for Trump.

Discussion

Studies have suggested that populist leaders may use the affordances of social media to cluster into "echo chambers" of like-minded networks (Engesser et al., 2017; Jacobs and Spierings, 2018), contributing towards extremity in beliefs among supporters, perpetuating post-truth claims and anti-elitism of messages (Waisbord, 2018). Studies also have suggested that at the citizen level, populists would feel attacked and retreat into like-minded networks (Norris and Inglehart, 2018), contributing to another dimension of echo chambers, which may manifest in offline or online networks.

We approached this proposition that "echo chambers" are associated with support for right-wing populism by defining echo chamber effects in terms of similarity in information and discussion. We found that echo chamber effects associated with similarity in information exposure do not predict support for right-wing parties and candidates compared with support for others. This is consistent with the idea that selective exposure and related effects are general in nature and not biased in some way toward right-wing populists. This is also consistent with the idea that polarization is occurring due to informational effects. It may be that echo chamber effects through informational similarity push all citizens towards extremes, such that whatever effects are occurring among populists are not greater than those occurring for socialists, Greens, and others. Further research could shed light here, especially using experimental or multi-wave panel data for stronger causal inference.

Where similarity in political discussion is concerned, our findings tend to exonerate the Internet generally and social media in particular, at least with respect to right-wing populism. Exclusive discussion with like-minded others through social media is not associated with support for right-wing populists in any of the three countries. This challenges popular impressions of the connection between social media "echo chambers" and right-wing

populism. As with informational similarity, it may be the case that echo chamber effects associated with social media networks and discussion are polarizing generally, but we see no evidence of a bias toward right-wing populism. It should also be noted that there is more to social media effects than homophily in networks. Our study was not designed to examine political recruitment and organizing through social media by populist parties and candidates. It was also not designed to examine problems of falsehoods and propaganda generally, which were important in the elections we studied here. Whether our findings from 2017 hold up in future elections is also an important question, as there is evidence that digital media effects vary over time (Bimber et al., 2015; Boulianne, 2018). As to whether our findings extend to radical populist groups, we cannot address this question with our data. However, we encourage further research and this research should look beyond social media effects, since we have observed the importance of the offline realm in echo chambers. Further, we note that the electoral success of populist candidates and parties depends a great deal on electoral systems (see Trithart, 2017). Our paper focuses on support for populism, rather than success of populism, leaving some unanswered questions about system-level characteristics, echo chambers, and populism.

Other studies have also found that gender and age affect support for populist candidates and parties (Inglehart and Norris, 2016; Stanyer et al. 2016). Like Inglehart and Norris (2016), we found that women in France were less supportive of populist candidates and parties. In our study, in the UK, gender did not predict populist support, but Stanyer et al. (2016) found that it was males who were more likely to support UKIP. As observed by Inglehart and Norris (2016) and Stanyer et al. (2016), age is a significant predictor across countries. Older people are more likely to support populism, compared to younger people. Norris and Inglehart (2018) point to the importance of geography in predicting the rise of populism. Stanyer et al (2016) made similar observations about UKIP supporters in the UK.

This is another area for further research. This research might also provide insight into the offline discussion network effects that we observed related to support for right-wing populism.

So where are echo chamber effects connected to populism? We employed two dimensions (information and discussion) and two domains of communication (offline and social media), but we only find a relationship in the case of offline political discussion with similar others, which is associated with support for right-wing populist candidates in the UK and in France. Surprisingly, the locus of populist echo chamber effects is people's offline networks. In line with some theory, populists do indeed experience some homogeneous political communication effects to a greater extent than others, but in 2017 in the UK and France, these were rooted in the offline world rather than in social media.

Beyond populism, this paper contributes to scholarship on echo chambers. In particular, we review the debates and definitions in existing scholarship on echo chambers. We conclude that the concept is not well developed conceptually. We discuss the problem of whether the echo chamber concept should refer to a continuum along which a person may be positioned, or whether it is a qualitative state, such that a person either is, or is not, in an echo chamber. We propose a two-dimensional understanding of echo chamber (information and discussion) and test a strong form of the concept in which an echo chamber entails exclusively pro-attitudinal political *discussion* and political *information*. We believe this paper will help move scholarship forward on the existence, extent, and implications of echo chambers on political attitudes and behaviours.

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Table 1: Populism

	Cultural Populism	% Declaring vote for candidate/party
United Kingdom		n=1343
Green Party	-3.165	4.4
Liberal Democrats	-1.994	11.3
Plaid Cymru	-1.750	0.4
Labour	-1.140	31.7
Scottish National Party (SNP)	-1.133	3.7
Conservatives	1.489	41.4
United Kingdom Independence Party (UKIP)	3.575	7
France		n=1315
P Poutou	-3.888	2.4
N Arthaud	-3.777	1.1
B Hamon	-3.222	9.4
JL Mélenchon	-2.333	22.2
E Macron	-1.166	24.7
F Fillon	2.666	14.6
N Dupont-Aignan	3.666	4.6
M Le Pen	3.888	21.1
US		n=1501
D Trump	-	37.6%

Notes. UK CHES 2014, France Vitello 2018. Note: In France two candidates are omitted from the calculation, as they did not position themselves on all issues.

Table 2: Descriptive Statistics

	UK		FR		US	
Gender (female1)	49.0%		50.0%		50.5%	
Profession (White Collar Employees)	41.3%		54.6%		31.3%	
Twitter account	32.9%		20.1%		31.9%	
	M	SD	M	SD	M	SD
Age	47.9	16.7	46.8	17.7	46.9	15.7
Education	1.93	1.1	2.09	1.0	2.05	1.1
Interest in politics	2.88	0.87	2.85	0.92	2.86	0.96
Political ideology (left to right)	0.12	2.0	0.33	2.3	0.12	2.5
Offline media	1.61	0.50	1.66	0.55	1.72	0.50
Online media	1.65	0.58	1.67	0.61	1.68	0.58

M=mean, SD=standard deviation

Table 3: Cultural populism

Demographics	UK				France				USA			
	b	se	B	p	b	se	B	p	b	se	Exp(B)	p
Gender (female1)	-0.087	0.086	-0.025	0.313	-0.287	0.120	-0.051	0.017	-0.152	0.131	0.859	0.245
Age	0.010	0.003	0.096	0.000	0.017	0.004	0.097	0.000	0.023	0.004	1.023	0.000
Profession (White Collar Employees)	0.165	0.093	0.046	0.075	0.039	0.126	0.007	0.758	0.114	0.146	1.121	0.434
Education	-0.106	0.042	-0.064	0.012	-0.197	0.057	-0.079	0.001	-0.004	0.066	0.996	0.951
Political characteristics												
Interest in politics	0.068	0.061	0.031	0.266	-0.019	0.074	-0.006	0.799	0.241	0.087	1.273	0.006
Political ideology (left to right)	0.419	0.021	0.480	0.000	0.685	0.022	0.644	0.000	0.531	0.035	1.700	0.000
Media usage												
Twitter account	-0.133	0.095	-0.035	0.161	0.037	0.151	0.005	0.806	0.047	0.148	1.048	0.751
Offline media	-0.068	0.099	-0.019	0.495	-0.130	0.137	-0.023	0.345	0.111	0.150	1.117	0.458
Online media	0.043	0.085	0.014	0.616	-0.035	0.117	-0.007	0.767	-0.376	0.140	0.687	0.007
Echo chamber												
Offline discussion EC	0.289	0.098	0.081	0.003	0.272	0.132	0.048	0.039	-0.002	0.156	0.998	0.992
SM discussion EC	-0.057	0.094	-0.016	0.539	-0.088	0.124	-0.016	0.477	0.029	0.141	1.029	0.839
Information EC	-0.013	0.104	-0.003	0.898	0.097	0.150	0.014	0.518	-0.131	0.164	0.877	0.427
Constant	-0.481	0.284		0.090	.000	0.384		1.00	-2.101	0.395		0.000
R^2	27.7%				45.2%				Cox & Snell R^2=.255			

*OLS in UK and France; logistic regression in USA. Excluding non-voters from the US model reduces the sample size, but does not affect findings related to Research Questions 1-3.