Social Media Use and Support for Populist Radical Right Parties: Assessing Exposure and Selection Effects in a Two-wave Panel Study

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Vote shares for populist radical right parties (PRRPs) have increased considerably in recent years, and this advancement of PRRPs has been attributed in part to social media. We assess the affinity between social media and populist radical right parties by examining whether more frequent social media use for news enhances the willingness to vote for a PRRP (exposure effect) as well as whether individuals who have voted for a PRRP in the past use social media more frequently to access news (selection effect). To address these research questions, we analysed data of a two-wave survey study that was conducted in Germany, focusing on the party Alternative for Germany (AfD). Binary logistic regression highlighted that social media use increased the likelihood of supporting the AfD. Pre-registered multinominal analyses, however, showed that this effect was driven by specific party comparisons. That is, using the AfD as a reference category, social media use reduced intentions to vote for parties that expressed similar positions as the AfD on the issue of immigration and with which the PRRP competes over votes. Social media selection effects were not supported.

key words: social media, voting, populist radical right, media effects, media selection

Social Media Use and Support for Populist Radical Right Parties: Assessing Exposure and Selection Effects in a Two-wave Panel Study

Populist radical right parties (PRRPs) have achieved substantial successes in local and national elections around the world (Betz, 1993; Mudde, 2007). Seeking to explain this development, previous research showed that voter characteristics (e.g., Ivarsflaten, 2008; Oesch, 2008; Pettigrew, 2017), as well as societal, economic and political factors (e.g., Eatwell & Goodwin, 2018; Mudde, 2004; Rink, Phalet, & Swyngedouw, 2009) can facilitate support for PRRPs. Furthermore, the advancement of populist radical right actors has been attributed in part to social media, which is thought to amplify and enhance the influence of the parties' messages (e.g., Hendrickson & Galston, 2017; Herrman, 2016).

Here, we explore the affinity between social media and populist radical right parties by focusing on citizens' social media use and voting intentions. We examine whether social media use to access information about current affairs enhances intentions to vote for a populist radical right party (Groshek & Koc-Michalska, 2017). In addition to these *social media exposure effects*, we address *selection effects.* We assess whether individuals who endorsed a PRRP in the last election relied more frequently on social media for news than those who voted for any other party (Pew Research Center, 2018; Schulz, 2018). To investigate these research questions, we present analyses of a two-wave survey study that was administered through an opt-in online access panel in Germany at the end of 2015 and in the spring of 2016. Analyses focused on the populist radical right party Alternative for Germany.

Populism and Populist Radical Right Parties

Populism is a thin ideology (Elchardus & Spruyt, 2014; Mudde, 2004) that encompasses a limited number of assumptions and concepts about social and political issues (Hawkins, Riding, &

Mudde, 2012). Three facets of populist ideology are distinguished: popular sovereignty, anti-elitism, and anti-pluralism (Mudde, 2004). 'The common people' are central to populism and are considered the core of a good society (Taggart, 2002). Populist actors claim to give a voice to the people and emphasise that popular sovereignty is the only legitimate form of political power (Mudde, 2007; Spruyt, Keppens, & van Droogenbroeck, 2016). Taking a Manichean approach, populists equate the people with the Good and pure, while the so-called elite, including mainstream politicians and media, is viewed as evil and corrupt (Jagers & Walgrave, 2007; Hawkins et al., 2012). Importantly, the people as well as the elite are thought to be homogenous entities; pluralistic ideas are opposed and procedures of representative democracy or minority rights are disregarded (Akkerman, Mudde, & Zaslove, 2014; Mudde, 2004).

Populist *radical right* parties convey populist as well as nativist and authoritarian convictions (Mudde, 2007). PRRPs assert that native citizens contribute to the viability of the titular nation and should be granted privileges. Non-natives, however, are considered as a threat, subsuming ethnocentristic and anti-immigrant sentiments (Arzheimer, 2015; Mudde, 2008). Ethnic and religious minorities, immigrants, or refugees are held responsible for an increase in criminality and social unrest as well as the loss of national identity (Rydgren, 2008). Populist radical right parties also promote a society that is defined by hierarchical structure (Betz, 1993). In placing 'us' natives and the people against 'them' non-natives and the elite, PRRPs pursue a vertical and horizontal distinction between different groups (Jagers & Walgrave, 2007).

The Affinity Between Social Media and Populist Radical Right Parties

Growing vote shares of populist radical right parties represent fundamental changes in voting behaviour. The latter is influenced by numerous factors, one of which is the (political) information that individuals receive across the hybrid media system; this includes information on social media (see Bos & Brants, 2014; Mazzoleni, 2008; Krämer, 2017). In fact, it has been argued

that social network, content sharing, and micro-blogging platforms are instrumental to promoting the messages of and, hence, facilitate support for populist radical right parties and candidates (Hendrickson & Galston, 2017; Herrman, 2016).

Notably, the opportunity structure of social media appears especially suited for the communication of populist radical right messages; and populist parties employ populist content and style more frequently on Facebook and Twitter than in political talk shows (Ernst, Blassnig, Engesser, Büchel, & Esser, 2019; see Krzyzanowski, 2018). On social media platforms, information can be shared at low cost directly with a large number of users—manifesting people centrality—without the intervention or perhaps censorship of elite gatekeepers (Engesser, Ernst, Esser, & Büchel, 2017; Engesser, Fawzi, & Larsson, 2017; Krämer, 2017). Populist radical right style, that is, how the ideology is communicated, further corresponds with the requirements of social media's attention economy (Engesser, Fawzi, et al., 2017). Populist radical right actors bring forward complex social phenomena, such as, immigration or law and order issues, and reduce these to apparently simple 'us versus them' scenarios; fear and anger are expressed; the future is presented as bleak, and others—non-natives and the elite—are blamed for negative developments (Hameleers, Bos, & de Vreese, 2017a; Oliver & Rahn, 2016; Taggart, 2002). It is precisely this style that is likely to stand out and get noticed on social media where a continuous flow of information compete for users' attention (Davenport & Beck, 2001; Engesser et al., 2017). Beyond being noticeable, there is evidence to suggest that social media platforms also enable populist radical right actors to set the agenda for public discourse in line with topics for which they hold issue-ownership. Faris and colleagues (2017) showed that in the lead up to the 2016 US Presidential election a right-wing media system—focused around the Breitbart News Network—repeatedly introduced the topic of immigration in public discussions on Twitter. The topic then dominated as well the reporting of other media outlets on this micro-blogging platform.

Social media also enables PRRPs to include 'the people' in information distribution and

campaigning. In the German context, the populist radical right party AfD recorded between September 2015 and April 2016 higher user engagement on Facebook than any mainstream party or the left-wing populist party *die Linke* (Dittrich, 2017; Müller & Schwarz, 2018). The number of Facebook fans grew drastically, particularly in response to certain events, such as in the autumn of 2015 when the German chancellor opened the border to allow refugees stranded in Austria to enter the country (Dittrich, 2017). 'Likes', comments, and 'shares' of content on the AfD's Facebook page increased in a similar pattern. In other words, a growing number of users actively contributed to information production and circulated content to a secondary audience, thereby further extending the reach of populist radical right messages to those who might not actively seek it (Ernst, Engesser, Büchel, Blassnig, & Esser, 2017).

Taken together, the evidence suggests that populist radical right parties, their messages, and the topics for which they hold issue-ownership are likely to be dominant and highly visible on social media platforms, also to citizens who are not directly connected with PRRPs on social media and who do not search for the content, that is, those who are incidentally exposed to the news (see Bode, 2016; Fletcher & Nielsen, 2017; Kim, Chen, & Gil de Zúñiga, 2013). Previous research has shown that exposure to such messages can enhance exclusionist attitudes and endorsement for populist radical right parties (Hameleers, Bos, & de Vreese, 2018; 2017a; 2017b). For example, being confronted with information that attributed blame for negative developments in the Dutch labour market to the national government or the European Union increased the propensity to vote for the Dutch PRRP Partij voor de Vrijheid (Hameleers et al., 2018). Moreover, it has been found that the more news media reported on topics related to immigration or crime, the more willing people were to vote for parties that advocated anti-immigrant policies, such as PRRPs (Boomgaarden & Vliegenthart, 2007; Burscher, van Spanje, & de Vreese, 2015).

We therefore hypothesise that *more frequent social media use for news enhances the willingness to vote for a PRRP* (*Hypothesis 1*). To our knowledge, only one study has explicitly

examined this relationship[1]. A representative cross-sectional survey conducted in the United States demonstrated that more frequent passive social media use was (only) associated with a higher likelihood to endorse Donald Trump, who, after Bernie Sanders, was considered to be the second most populist candidate in the 2016 US presidential election (Groshek & Koc-Michalska, 2017). Notably, the analysis focused on the candidate's level of populism and not their political orientation. Having said this, populist radical right ideology has been found to characterise the (online and offline) discourse of Trump (Kreis, 2017).

In addition to incidental exposure to information that promotes populist radical right ideology, such news may of course also be sought on social media as a means to confirm one's existing populist radical right opinions (Slater, 2015). The internet has been described as an environment that advances the selection of attitude-congruent information (Hart, Albarracín, Eagly, Brechan, Lindberg, & Merrill, 2009; Iyengar & Hahn, 2009; Schemer, 2012; Stroud, 2008). We argue that the choice to rely on social media to access information about current affairs may be determined as well by individuals' support for populist radical right parties, and that *those who have voted for a populist radical right party use social media more frequently for news than individuals who have not voted for a PRRP* (*Hypothesis 2*).

Supporters of PRRPs report lower trust in mainstream media (Bartlett et al., 2011) and have more negative lay theories about the mainstream media (Fawzi, 2018); mainstream media skepticism, in turn, predicts higher online news exposure (Tsfati, 2010). Populist attitudes further are related with stronger hostile media effects (Schulz et al., 2017): As a person supports populist ideas more strongly, she or he also perceives the mainstream media's reporting as more hostile toward her or his personal standpoint (Schulz, Wirth, & Müller, 2018). Low political trust—which characterises supporters of populist parties—is as well associated with social media use for news

[1] See also Schulz (2018), who showed that populist attitudes are positively related with use of Facebook but negatively associated with Twitter use for news.

(Ceron, 2015). To date, social media selection effects, driven by individuals' support for populist radical right parties, have not been assessed. Addressing this research question adds to the understanding of the influences of political preferences on media choices. Moreover, by specifying exposure *and* selection effects—and testing both hypothesis in one model—we can approximate how social media use for news by those who already support a PRRP affects voting intentions and distinguish these dynamics from incidental exposure effects.

The Present Study

Study Context: The Alternative for Germany

The present research was conducted in Germany and focuses on the populist radical right party Alternative for Germany (Berbuir, Lewandowsky, & Siri, 2015). Founded in 2013, in reaction to measures proposed to address the European debt crisis, the AfD promoted initially mainly a Euro-sceptic stance. Today, however, the party has established a broad program that emphasises national-conservative policies and aims to uphold Germany's sovereignty and national pride; it advocates traditional gender roles and seeks to introduce stricter immigration laws and asylum regulations (Arzheimer, 2015). The AfD emerged as an electoral force in the European Parliament elections in 2014. Its support further increased significantly in the summer of 2015, a period when a large number of refugees and asylum seekers came to Germany (Decker, 2016). In the last national election in 2017, the Alternative for Germany almost tripled its vote share from 4.7% (in 2013) to 12.6% and is now the third largest party in the German parliament (Bundeszentrale für Politische Bildung, 2018a).

Method

The analyses of this study were pre-registered in April 2018; the pre-registration is available for review[2]. An additional explanation for the pre-registration is provided in the supplementary material (S1). Before the pre-registration, we had analysed data of respondents who described themselves as members of the majority group, considering their voting behaviour, national identification, outgroup feelings, and perceived threat of immigrants. Data pertinent to media use patterns and its relationship with voting behaviour were not examined before the present analyses were pre-registered. The dataset associated with this study can be freely accessed[3].

Design and Sample. To examine the hypotheses, we drew on a dataset of a two-wave survey study—the lag between both waves was approximately six months—that was conducted as part of a large cross-cultural research project in 22 countries from the Americas, Asia, Europe, and South Africa. The survey included a wide range of scales and variables, and data from the full study has been used to investigate diverse topics such as well-being and system justification (Khan, Garnett, Hult Khazaie, Liu, & Gil de Zúñiga, 2019, Vargas-Salfate, Paez, Khan, Liu, & Gil de Zúñiga, 2018). The lead authors of the present research did not develop the survey, and data were not explicitly collected to test our hypotheses. We chose to base our analysis on (a subset of) this large dataset, because the survey examined the variables central to our research question in a unique longitudinal design with a high-quality sample.

Notably, we relied on data from the German sample, which included $N = 1053$ respondents. We excluded respondents who had not participated in both measuring points of the study; no further exclusion criteria were applied. This longitudinal analytical sample was comprised of $N = 644$ respondents. As the original dataset aimed to allow for a range of analyses, this sample size was larger than would have been defined based on a-priori power analyses. To test our hypotheses that

[2] See: https://osf.io/yftwq/register/5730e99a9ad5a102c5745a8a
[3] See: https://osf.io/pgz5r/?view_only=2676d81b23d24ac9afb0e247d3b5fe89

anticipate a small effect (f^2 = .10; Groshek & Koc-Michalska, 2017), seeking power of 1-β = .95, and α = .05, a sample size of N = 254 would have been sufficient. Below, we report effect sizes to ensure that the larger than required sample does not lead us to detect statistically significant, yet trivial effects.

Respondents were M_{age} = 45.10 (SD_{age} = 15.07) years old; 53.9% were female. The majority (90.5%) identified as being German, with a 'white' background. Drop-out analyses indicated that respondents who participated in Wave 1 *and* Wave 2 did not differ from those who only participated in Wave 1 regarding their feelings towards immigrants (F(1, 857) = 1.15, p = .283, η^2 = .001), perceived threat of immigrants (F(1, 857) = .35, p = .552, η^2 = .00), national identification (F(1, 857) = .89, p = .345, η^2 = .00), political efficacy (F(1, 857) = .42, p = .516, η^2 = .00), trust in traditional media (F(1, 857) =1 .56, p = .211, η^2 = .00), or income (F(1, 857) = 1.49, p = .222, η^2 = .00). Further, the number of women and men in 'Wave 1-only' and the longitudinal sample did not differ significantly (χ^2(1) = .12, p = .751). However, respondents who took part in both waves of the survey used traditional media somewhat more frequently (F(1, 857) = 4.32, p = .038, η^2 = .01), social media less frequently (F(1, 857) = 44.85, p = .000, η^2 = .05), and trusted social media less (F(1, 857) = 17.33, p = .000, η^2 = .02); they were also slightly older than respondents who dropped out of the study after Wave 1 (F(1, 857) = 50.89, p = .000, η^2 = .06).

Procedure. To compose the German survey, items were translated from English to German employing a committee approach. The survey was administered by a professional polling company; the link to the survey was shared with members of their online access panel. Stratified quota sampling techniques were used, based on information from the 2011 census in Germany, to achieve a sample that closely matched the German population on the variables of gender, age, and state of residency. Wave 1 data were collected from September to October 2015, and Wave 2 data collection ran from March to April 2016.

Measures. See Table 1 for all items, answer options and, where applicable, scale properties. *Social media use* for news was operationalised through an item that examined how frequently, in a normal week, respondents used social media to receive information about current affairs. We captured as well the use of *traditional media* for news (via television, newspapers and radio). Past *voting behaviour* and which party respondents *intended to vote for* were investigated with respect to the last (2013) and upcoming (2017) national election in Germany respectively. In addition to all parties represented in the German parliament at the time when the study was conducted (CDU/CSU, SPD, The Green Party, the Linke, FDP[4]) the AfD, the right-wing extremist NPD (National Democratic Party of Germany), 'Other parties', 'not having voted' and 'not intending to vote' were answer options.

We further included several control measures for the prediction of voting intentions. First, we aimed to consider respondents' anti-immigrant sentiments, as this has been found to be a key predictor of support for the AfD, more so than anti-EU sentiments (Hansen & Olsen, 2019). Doing so, we drew on reported *outgroup feelings* as well as *perceived threat of immigrants*. Moreover, in order to tap into respondents' dissatisfaction with government (Giebler & Regel, 2018), we relied on items that examined *political efficacy* beliefs with regards to the ability to influence the government. *National identification* was introduced, as we expected those with stronger national identification to be more responsive to the AfD campaigns that claimed to protect German identity (see Lubbers & Coenders, 2017). By accounting for the average hours of *overall social media use daily* we were able to distinguish social media for news from other types of use. Finally, *trust in news from traditional media* and *social media* were included as control variables for the analyses that investigated media selection effects.

--Table 1 here--

[4] CDU/CSU = Christian Democratic Union/Christian Social Union, SPD = Social Democratic Party of Germany, FDP = Free Democratic Party

Results

Descriptive Results. Means, standard deviations, as well as bi-variate correlations between continuous variables are presented in Table 2. Intentions to vote for the AfD in the German national election in 2017 were at 14.7% just slightly below that reported for the CDU/CSU, which 17.7% of respondents planned to vote for. Comparing the number of respondents who intended to vote for the AfD in 2017 (n = 89) with those who had voted for the party in 2013 (n = 37), a significant increase was documented ($\chi^2(1) = 173.90$, $p = .000$). Additional votes for the AfD came primarily from respondents who had voted in 2013 for the CDU/CSU (n = 25) and the Linke (n = 12); former SPD voters (n = 6), FDP (n = 2), NPD (n = 2) and non-voters (n = 4) also expressed intentions to vote for the AfD in 2017 (Table 3).

--Table 2 here--

--Table 3 here--

Principal component analysis with oblimin rotation of all 'media use' items (Wave 1, Wave 2) showed that the items loaded on two factors (Table 4). We excluded 'word of mouth' due to its cross-loadings and calculated a mean score across items that referred to use of traditional media. As our research questions focus on social media use, we tested the hypotheses with this single item measure and not an 'online media' mean score[5]. Result patterns were not different when the mean score across all three online media was included in the analyses.

In Wave 1, respondents reported using traditional media ($M = 4.97$, $SD = 1.32$) more than social media ($M = 3.49$, $SD = 1.99$) to receive news ($t(1035) = -20.44$, $p = .000$, d = .88). Respondents also trusted traditional media ($M = 4.17$, $SD = 1.51$) more than social media ($M = 2.86$, $SD = 1.40$;

[5] Note that this approach differs from the pre-registration. See supplementary material S1 for more information.

$t(1044) = 23.77$, $p = .000$, d = .90). Social media use for news did not change significantly across both waves of data collection ($t(622) = .45$, $p = .655$, d = .01).

--Table 4 here--

Hypothesis 1. To explore whether social media use for news enhances intentions to vote for a PRRP, we conducted first a binary logistic regression with the dichotomous outcome variable 'intending to vote for the AfD in the next national election or not'. The main predictor variable was social media use at Wave 1. We further included frequency of traditional media use (Wave 1), having voted for the AfD in the national election in 2013 (dichotomous variable), as well as outgroup feelings (Wave 1), perceived threat of immigrants (Wave 1), political efficacy (Wave 1), national identification (Wave 1), overall time spent on social media (Wave 1) gender, age, and income as covariates. Results (Table 5) showed that social media use as reported in Wave 1 increased the likelihood of intending to vote for the populist radical right party in Wave 2 (R^2 Nagelkerke = .43, R^2 Cox and Snell = .25).

Table 5 includes the odds ratios (OR), which indicate the strength of the association between the predictor and the outcome variable, that is, how a one-unit increase in the independent variable affected the chance of voting for the AfD. Odds ratios larger than 1 point to an increase in voting odds. Increasing social media use by one unit was associated with a 22% higher chance to vote for the AfD. Higher perceived threat of immigrants was related to a 26.8% increased chance to vote for the AfD, while more positive outgroup feelings towards immigrants were related with a 25% lower chance to vote for the AfD (i.e., to arrive at this value the OR is deducted from 1). Not having voted for the AfD in the last election reduced chances to vote for the AfD by 99%[6].

--Table 5 here--

In order to understand whether social media use for news affected decisions to vote for a

[6] Please note that the variable parameters used in the analysis by the statistical software are such that 'having voted for the AfD' is denoted with zero and 'not having voted for the AfD' is denoted with one. This analysis was conducted using SPSS 25.0.

particular party rather than the AfD we further computed a multinominal logistic regression analysis (using MPlus 7.2; Muthén & Muthén, 1998-2011). Voting intentions with respect to the German national election in 2017 were introduced as the dependent variable. Predictors remained the same as in the binary logistic regression. Results (Table 6) provided a more nuanced picture.

More precisely, using the AfD as a reference category, more frequent social media use reduced intentions to vote for the FDP by 30%, the NPD by 80%, and other smaller parties by 26%. However, intentions to vote for the CDU/CSU, the SPD, the Green party, as well as the Linke and intentions to not vote—compared to voting for the AfD—were not significantly influenced by social media use for news. The role of the covariates differed for the eight party comparisons. Having voted for the AfD in the past consistently reduced chances to vote for any other party or to not vote in 2017 rather than vote for the AfD. More positive outgroup feelings increased the chances to vote for the two government parties CDU/CSU and SPD rather than the AfD by 49.5% and 54.2% respectively. A one unit increase in perceived threat of immigrants, in turn, was associated with a 28% reduced chance to vote for the SPD, a 45% reduced chance to vote for the Green Party, and a 38% reduced chance to vote for the Linke. Higher levels of national identification further reduced chances to vote for the Linke, by 40%, and the FDP, by 31%, rather than the AfD. Higher age and income reduced the likelihood to vote for the NPD rather than AfD by 13% and 73% respectively..

--Table 6--

Hypothesis 2. Media selection effects were examined first by conducting a multivariate analysis of variance. We assessed whether respondents who voted for the AfD or any other party (or had not voted) in 2013 differed with respect to their social media use as assessed in Wave 2, and trust in social as well as traditional media at Wave 2. Social media use as assessed in Wave 1, and trust in social as well as traditional media at Wave 1, age, gender, income, and average daily social media use were considered as covariates. Results did not indicate social media selection effects. Specifically, frequency of social media use for news ($F(1, 615) = .73$, $p = .395$, $\eta^2 = .00$) as well as

trust in social media ($F(1, 615) = .00$, $p = .977$, $\eta^2 = .00$) did not differ between the two groups of respondents. However, trust in traditional media was significantly lower amongst 'AfD voters' ($M = 3.03$, $SD = 1.66$) as compared to other respondents ($M = 4.44$, $SD = 1.43$) ($F(1, 615) = 10.82$, $p = .001$, $\eta^2 = .02$).

In order to acknowledge the relationship between social media selection and exposure effects—that is, choosing belief-congruent media leads to being exposed to it—we further explored social media selection in the previously described multinominal logistic regression. We specified an additional path indicating that having voted for the AfD in the national election in 2013 predicts social media use as reported in Wave 1, controlling for trust in social media reported in Wave 1. Results indicated that the effect of social media use at Wave 1 on voting remained stable. There was, however, no significant relationship between past AfD voting and social media use in Wave 1 ($\beta = .08$, $p = .084$); trust in social media was related with social media use ($\beta = .43$, $p = .000$; $R^2 = .19$). Based on these findings, we rejected Hypothesis 2.

Discussion

The substantial successes of populist radical right parties in recent years illustrate that PRRPs are not a fringe phenomenon but an electoral force. In this paper, we investigated whether social network, content sharing, and micro-blogging platforms may contribut to the advancement of populist radical right parties. Drawing on data from a two-wave panel survey conducted in Germany, we examined the relationship between social media use for news and intentions to vote for a PRRP. We showed that more frequent use of social media to receive information about current affairs increased the likelihood to intend to vote for the AfD. Social media selection effects, facilitated by having voted for the Alternative for Germany in the national election three years earlier, were not supported. Below, we discuss these results, the study's limitations as well as implications for future research.

Social Media Exposure Effects

A burgeoning body of research has demonstrated that accessing political information through social media facilitates civic and political participation, including voting and attendance at protests (Boulianne, 2015; Gil de Zúñiga et al., 2012; Xenos & Moy, 2007). Our study indicates that these effects cannot necessarily be generalised across different political parties or movements. More precisely, although a binary logistic regression analysis pointed to the influence of social media use for news on a higher likelihood to vote for a PRRP, nuanced analyses suggested that social media use only shaped intentions to vote for a populist radical right party as compared to two parties and a collection of other, usually smaller single-issue, parties. The results were not simply an expression of the impact of overall news consumption on voting intentions, as traditional media use was not systematically related with voting intentions. In addition, social media selection effects did not influence result patterns, which suggests that the latter were not purely the expression of continued party support by those who had voted for the AfD in the past and therefore used social media more frequently.

To understand the differential social media exposure effects it is important to consider the positions of the assessed political parties at the time of data collection (spring 2016), in particular on an issue for which the AfD had issue ownership—immigration. It goes beyond the scope of this paper to review the information in detail. However, it is apparent that social media use reduced intentions to vote for two parties that took a clear stand and were aligned with the AfD on requesting stricter immigration policies—the FDP and NPD.[7] Anti-immigrant sentiments—either more negative feelings towards or higher perceived threat of immigrants—by contrast significantly predicted intentions to vote for the AfD rather than the CDU/CSU, SPD, the Green Party, and the Linke but did not affect the comparisons between the AfD and FDP, NPD, and Other parties.

On one hand, the present research indicates that social media use for news is unlikely to

[7] The answer option 'Other' was not combined with open text answers. It is therefore not possible to specify the type of other parties that people had voted for to conclude, for instance, the party's stance on immigration.

sway voting intentions in favour of PRRPs when it comes to choices between parties that differ substantially in terms of key policy stances and ideology. On the other hand, we documented that more frequent social media use impacts voting intentions regarding parties that compete with a populist radical right party over the same voter base. Dominant and noticeable social media content that promotes populist radical right ideology and style—introduced either by PRRPs and their supporters or adopted by other outlets—provides PRRPs with an advantage of visibility and engagement that may to a certain extent contribute to additional vote shares (Engesser et al., 2017; Ernst et al., 2017; Krämer, 2017).

Social Media Selection Effects

Our results did not demonstrate social media selection effects. Respondents who had voted for the AfD and those who had supported different parties in the 2013 national election in Germany, as well as individuals who had not voted, did not differ in the frequency of social media use for news as reported in Wave 1 of the survey. We also did not identify traditional news avoidance effects, although, as suggested by previous research (Fawzi, 2018; Schulz et al., 2017), respondents who had voted in the past for the AfD trusted traditional media less. To interpret this—lack of—findings, conceptual and methodological concerns must be considered. Unlike the choice of specific content or sources that endorse certain political positions, social media might be viewed as highly personalised, such that citizens with different political convictions use it to access news that is belief-congruent. That is, selection effects may be harder to detect when media rather than sources and messages are examined. In addition, Slater (2015) noted that media selection effects are indicative of attitudes or behaviour salient at the time of media choice. He further emphasised that shorter lags or concurrent assessment would be preferred to capture media selection effects. In our study, we regressed social media use on voting behaviour two years earlier, relying on the fact that the latter—and associated attitudes—would remain stable. Considering the reported vote switches of those who had voted for the CDU/CSU and SPD in 2013, this assumption was perhaps

not warranted.

Limitations and Implications for Future Research

Our conclusions must be viewed in light of a number of limitations. First, our data provides neither information about the content that respondents used on social media nor whether they indeed engaged with populist radical right content. Therefore, the underlying mechanisms of the social media exposure effect cannot be specified. Following Dittrich's (2017) analysis of the AfD's Facebook page we can stipulate that as Wave 1 was administered, the number of AfD fans was starting to increase substantially as did user engagement with the page. Thus, this was a period when, at least on Facebook, a growing number of German citizens might have been exposed to the populist radical right ideology of the AfD. However, to receive more specific insights, future research should combine a panel survey study with diary records of social media use.

Related to this point, we should note that our measure of social media use does not strictly distinguish between incidental exposure to populist radical right content and social media use targeted at seeking such content. We aimed to approximate this distinction by specifying social media selection and exposure effects in one model. However, examining, for instance, whether individuals follow specific (populist radical right) political actors or groups and receive news from them on social media would allow for more refined analyses.

Further, we encourage other researchers to replicate the study in a different context. The time of data collection was unique; it occurred during a critical period of the so-called refugee or migrant crisis in Germany when a record number of asylum seekers from Syria, Iraq, and Afghanistan were registered in the country (Bundeszentrale für Politische Bildung, 2018b). Topics associated with immigration were likely communicated across the hybrid media system by various sources. This also means that social media was at this time a space where the AfD's messages and arguments for which they have issue-ownership were especially prevalent. As such, our study

might constitute an extreme case that ought to be contrasted, for instance, against data from countries that did not experience a large influx of immigrants or data from the same country at a different time point.

As a methodological note, we also suggest measuring voting intentions as a continuous variable, as it avoids the—low-powered—comparison of small sub-groups in multinominal regression analyses. Moreover, we would like to raise a word of caution regarding the causal conclusions that can be derived from the present study. Longitudinal designs are considered as a non-experimental alternative to draw causal inferences. Cross-lagged models address concerns of possible reverse causation as well as the role of confounding variables. However, the present analysis is not a full cross-lagged analysis. Voting intentions were only assessed in Wave 2, and we used a measure of past voting behavior as a proxy for previous voting intentions when examining social media selection.

In addition, we cannot be certain that the present result patterns will hold if additional control variables are added. We aimed to include relevant variables to the extent that these were available in the data set that we relied on. However, we did not take into account factors such as respondents' ideological standpoint, political cynicism, or protest voting. Lastly, as has been discussed elsewhere (Peifer & Garrett, 2014), in relying on an online access panel, we must acknowledge that the findings cannot necessarily be generalised to the whole population. The sampling strategy was designed so that respondents closely resembled the German population in terms of age, gender, and regional distribution. Respondents also used traditional media more frequently than social media for news; nevertheless, they were likely more accustomed to using online sources than the general public.

Conclusion

Notwithstanding these challenges, we believe that our study makes an important

contribution to the literature. We provide partial evidence for the claim that social media contributes to the success of populist radical right parties. Social media use for news per se is unlikely to change voting intentions in favour of PRRPs. Rather, as social media platforms are a vehicle to communicate populist radical right ideology at scale, this (highly noticeable) content provides an advantage for PRRPs as they compete for vote shares with parties that endorse similar positions on important political issues.

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Table 1. Items and scale properties.

Concept (measuring point)	**Question and Items (answer options)**	**Cronbach's α Wave 1/2**
Media use (Wave 1&2) *Traditional media use* *Social media use* *Other online media use*	How frequently, in a normal week, do you use the following media to receive information about current affairs: *Television news (cable OR local network news)* *Printed newspapers* *Radio* *Social media* Citizen journalism sites Online news websites Word of mouth (from other people) (1 = *never;* 7 = *always*)	.60/.65
Past voting behaviour (Wave 2)	Which party did you vote for in the last national election?	n/a
Voting intentions (Wave 2)	Which party do you plan to vote for in the next national election?	n/a
Outgroup feelings (Wave 1)	Please indicate how warm you feel towards the following groups 'Immigrants' (1 = *the least warm*; 7 = *the most warm*)[8]	n/a
Perceived threat of immigrants (Wave 1)	Immigrants are a threat to world peace (1 = *disagree completely;* 7 = *agree completely*)	n/a
Political efficacy (Wave 1)	People like me can influence government, No matter whom I vote for, it won't make a difference (reversed), People like me don't have any say in what the government does (reversed) [item removed to improve scale reliability: I consider myself well qualified to participate in politics] (1 = *disagree completely;* 7 = *agree completely*)	.63
National identification (Wave 1)	Being German is very important to me, I feel that I am a typical German, The term German describes me well, I identify with my nationality (1 = *disagree completely;* 7 = *agree completely*)	.92
Trust in media (Wave 1) *Traditional media* *Social media*	How much do you trust News from Mainstream news media (e.g., newspapers, TV) News from Social media (1 = *not at all;* 7 = *completely*)	n/a
Social media daily in h (Wave 1)	For how many hours do you use social media on an average day?	n/a

[8] Lower values indicate less positive outgroup feelings; higher values indicate more positive outgroup feelings.

Table 2. Mean values and Standard Deviations as well as Bi-variate Correlations of Continuous Variables Included in the Analyses.

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	
1	Social media use (N = 1052)	3.49	1.99	1											
2	Social media use Wave 2 (N = 623)	3.07	1.99	.77**	1										
3	Traditional media use (N = 1053)	4.97	1.32	.06	.04	1									
4	Traditional media use Wave 2 (N = 642)	5.06	1.37	.03	.06	.84**	1								
5	Outgroup feelings (N = 1051)	4.13	1.54	.08**	-.05	.07*	.03	1							
6	Perceived threat of immigrants (N = 1050)	2.99	1.72	.06	.17**	-.02	-.00	-.54**	1						
7	Political efficacy (N = 1047)	3.89	1.99	-.06	.03	-.09**	-.08*	-.26**	.27**	1					
8	National identification (N = 1052)	4.15	1.61	-.03	.03	.20**	.24**	-.30**	.31**	.05	1				
9	Trust in mainstream media (N = 1046)	4.17	1.51	-.03	-.05	.27**	.26**	.18**	-.19**	-.24**	.16**				
10	Trust in social media (N = 1046)	2.86	1.40	.45**	.45**	.06	.08	.11*	.07*	-.06	.12*	.71**	1		
11	Social media daily in h (N = 1050)	5.48	3.77	.20**	.20**	-.11**	-.17**	.002	.02	.04	-.11**	.10**	.08*	1	

Note. Unless indicated otherwise, Wave 1 measures are reported. ** $p < .01$, * $p < .05$

Table 3. Past voting behaviour and voting intentions.

Party	Voted for party in 2013 (n)	Intend to vote for party in 2017 (n)
CDU/CSU	150	108
SPD	110	83
the Green Party	60	69
FDP	31	40
the Linke	81	67
AfD	37	89
NPD	5	4
Other parties	35	55
Did not/will not vote.	104	91

Table 4. Principal component analysis of media use items.

Wave 1	**1 - online media**	**2 - traditional media**
Television news (cable OR local network news)	-.05	**.74**
Printed newspapers	.24	**.78**
Online news websites	**.66**	.29
Radio	.26	**.67**
Social media	**.80**	-.02
Citizen journalism sites	**.84**	.14
Word of mouth (from other people)	.57	.49
Eigen value	1.50	2.51
Variance explained	21.47%	35.84%
Wave 2	**1 - online media**	**2 - traditional media**
Television news (cable OR local network news)	-.09	**.76**
Printed newspapers	.24	**.79**
Online news websites	**.63**	.38
Radio	.23	**.70**
Social media	**.83**	.03
Citizen journalism sites	**.84**	.09
Word of mouth (from other people)	.53	.51
Eigen value	2.53	1.58
Variance explained	36.10%	22.52%

Table 5. Social media exposure effects on intentions to vote for the AfD or not (binary logistic regression)

Predictor			
	β	*p*	*Odds Ratio*
Social media use	.20	.026	1.22
Traditional media use	-.10	.492	.90
Past voting for AfD	-4.37	.000	.01
Outgroup feelings	-.28	.031	.75
Perceived threat of immigrants	.24	.030	1.27
Political efficacy	.10	.255	1.10
National identification	.17	.143	1.19
Social media daily in h	-.06	.244	.95
Gender	.03	.936	1.03
Age	.02	.158	1.02
Income	.13	.417	1.14

Note. OR are rounded values.

Table 6. Social media exposure effects on voting intentions (multinominal logistic regression)

Predictor	CDU/CSU vs AfD			SPD vs AfD			the Green Party vs AfD			FDP vs AfD			the Linke vs AfD			Will not vote vs AfD		
	β	*p*	*OR*	*β*	*p*	*OR*	*β*	*p*	*OR*	*β*	*p*	*OR*	*β*	*p*	*OR*	*β*	*p*	*OR*
Social media use	-.14	.233	.87	-.09	.469	.92	-.16	.230	.85	**-.36**	.022	.70	-.18	.189	.83	-.22	.070	.80
Traditional media use	.26	.16	1.30	.27	.153	1.31	.17	.389	1.18	.17	.454	1.19	.26	.215	1.30	-.08	.669	.92
Past voting for AfD	**-14.17**	.000	.00	**-14.06**	.000	.00	**-14.42**	.000	.00	**-12.70**	.000	.00	**-13.67**	.000	.00	**-13.87**	.000	.00
Outgroup feelings	**.40**	.016	1.50	**.43**	.012	1.54	.34	.052	1.41	.21	.227	1.24	.37	.059	1.45	.21	.228	1.23
Perceived threat of immigrants	-.23	.100	1.80	**-.33**	.028	.72	**-.61**	.000	.55	-.12	.469	.89	**-.49**	.006	.62	-.08	.589	.93
Political efficacy	-.18	.062	.83	**-.26**	.009	.77	**-.25**	.020	.78	-.22	.103	.81	-.13	.257	.88	.18	.14	1.20
National identification	.21	.190	1.23	-.04	.815	.96	-.28	.078	.75	**-.37**	.021	.69	**-.52**	.003	.60	-.30	.075	.74
Social media daily in h	.03	.639	1.03	-.03	.616	.97	.04	.512	1.04	.09	.158	1.10	.10	.108	1.10	.10	.059	1.11
Gender	.03	.943	1.03	-.00	.995	1.00	.87	.059	2.38	.07	.90	1.07	.17	.72	1.18	-.07	.869	.93
Age	-.03	.098	.97	-.01	.516	.99	-.03	.06	.97	-.00	.954	1.00	.04	.051	1.04	-.04	.018	.96
Income	.34	.101	1.40	-.13	.54	.88	-.21	.377	.81	.33	.252	1.39	-.40	.089	.67	-.38	.077	.69

Note. χ^2 (88) = 398.08, p = .000, R^2 Cox and Snell = .58, R^2 McFadden = .21, R^2 Nagelkerke = .59

Non-standardised regression coefficients are provided. OR are rounded values.

Table 6. Social media exposure effects on voting intentions (multinominal logistic regression), continued

Predictor	NPD vs AfD			Other parties vs AfD		
	β	*p*	*OR*	*β*	*p*	*OR*
Social media use	**-1.61**	.007	.20	**-.31**	.022	.74
Traditional media use	-.21	.561	.81	-.02	.914	1.31
Past voting for AfD	**-10.37**	.000	.00	**-1.93**	.012	.15
Outgroup feelings	-.34	.650	.71	.24	.202	1.28
Perceived threat of immigrants	.21	.445	1.24	-.17	.297	.85
Political efficacy	.47	.233	1.61	-.07	.559	.93
National identification	-.16	.678	.85	-.25	.130	.78
Social media daily in h	-.79	.066	.46	.08	.184	1.09
Gender	-.25	.833	.78	.14	.761	1.15
Age	**-.14**	.000	.87	-.02	.345	.98
Income	**-1.30**	.006	.27	-.23	.285	.79

Note. χ^2 (88) = 398.08, p = .000, R^2 Cox and Snell = .58, R^2 McFadden = .21, R^2 Nagelkerke = .59

Non-standardised regression coefficients are provided. OR are rounded values.

Supplementary Material

S1

Below we would like to offer further information to explain how and why the analyses presented in this paper differ from the pre-registration. The analyses were pre-registered as multi-level analyses, considering that respondents are nested in one of the 16 German states and using the number of foreigners in each state as a context-level predictor of intentions to vote for a populist radical right party. Second, we pre-registered analyses that included a mean score of 'online media use' as well as a multi-nominal measure to control for past voting behavior.

When we conducted multi-level analysis, the model could not be identified and one parameter was fixed to avoid singularity of the information matrix. The standard errors, and thus the p-values and confidence intervals, of the multi-level analysis may not be trustworthy. We therefore, decided to not present the multi-level model and opted for a regression analysis that does not take the nestedness of respondents in states into account. Moreover, we are grateful to two reviewers who pointed out that the mean score of 'online media use' does not reflect the theoretical argument and literature in which this study is embedded—the single-item 'social media use' is more suitable. In addition, the multi-nominal measure of past voting behavior could not be easily interpreted in the regression analyses, such that a dichotomous measure (having voted for the AfD or not) was introduced.

Below (Table S1), we report the pre-registered analysis. Certain result patterns were similar to the ones reported in the main analysis. Notably, the social media exposure effects show the same pattern with the exception of the effect of social media use on 'intending to not vote rather than vote for the AfD' which is significant in the pre-registered but not the adapted analysis.

Table S1. Social media exposure effects on voting intentions as pre-registered.

Predictor	CDU/CSU vs AfD	SPD vs AfD	the Green Party vs AfD	FDP vs AfD	the Left vs AfD	NPD vs AfD	Smaller other parties vs AfD	Not voting vs AfD
	β, p	*β, p*	*β ,p*	*β, p*	*β, p*	*β, p*	*β, p*	*β, p*
Online media use	-.08, .257	-.15, .120	-.17, .105	-.46, .000	-.16, .059	-.59, .000	-.72, .000	-.33, .001
Past voting behaviour	-.94, .000	-.77, .000	-.50, .000	-.42, .008	.10, .492	.27, .023	.25, .000	.39, .136
Traditional news use	.04, .512	.12, .051	.12, .137	.14, .440	.14, .319	.01, .966	.06, .000	.07, .711
Outgroup feelings	.21, .006	.31, .002	.28, .004	.27, .008	.36, .001	.34, .013	-.23, .000	.42, .017
Perceived threat of immigrants	-.21, .045	-.26, .001	-.47, .000	-.21, .238	-.44, .000	-.12, .527	.11, .000	-.31, .025
Political efficacy	.01, .912	-.09, .322	-.11, .314	-.26, .146	-.16, .169	.12, .415	.26, .000	-.13, .545
National identification	-.00, .988	-.10, .291	-.19, .044	-.39, .005	-.35, .001	-.27, .099	.01, .000	-.34, .181
Gender	-.01, .933	-.01, .940	.19, .085	.08, .694	.10, .297	-.02, .898	-.28, .000	.13, .630
Age	-.15, .003	-.18, .151	-.26, .006	.02, .920	.30, .001	-.26, .019	-.28, .000	-.05, .831
Income	.06, .355	-.10, .131	-.15, .037	.20, .313	-.21, .024	-.38, .009	-.10, .000	-.20, .154
Social media use daily in h	.03, .445	-.01, .882	.07, .333	.25, .012	.22, .007	.35, .000	-.17, .000	.25, .080
Number of foreigners*	.00, .658	-.00, .095	.00, .773	-.00, .155	-.00, .006	.00, .153	-.09, .000	-.00, .004

Note. * = non-standardised coefficients