



# Political social media use and its linkage to populist and postmaterialist attitudes and vote intention in the Netherlands

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## Abstract

This study focuses on social media use of citizens from two groups that are often associated with the rise of social media: populist and postmaterialist citizens. Considering their ideological underpinnings, we theorize that they will make more political use of social media and that this further reifies their political attitudes into voting for populist and postmaterialist parties, respectively. Using unique survey data including the relatively new populist attitudes and political use of social media, we test this theory on the Dutch case. We find that both groups do not read political news or connect to politicians more, but both are more likely to react to political content. Moreover, social media use does not seem to lead to a retention in one's own ideological funnel signified by populist or postmaterialist voting. Among more postmaterialist citizens, passive social media use even makes it more likely to vote for other parties.

**Keywords** Attitudes · Populism · Postmaterialism · Social media use · Voting

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While it is widely acknowledged that social media affects political behavior (see Boulianne 2015; Dimitrova et al. 2014; Gil de Zúñiga et al. 2014; Spierings and Jacobs 2014), the literature remains limited in terms of understanding which citizens use social media politically and how it influences voting behavior. This knowledge gap can be traced to at least two tendencies in the literature: a focus on the role of social media in a specific setting, mostly the USA, and a focus on (vocal) social media users only. These tendencies leave out the question of *which* citizens turn to social media for political information and activities (Colleoni 2014; Himelboim et al. 2013; Messing and Westwood 2014; Lawrence et al. 2010). These foci restrict our knowledge, and both tendencies are likely to lead to overestimating the impact of political social media use. Therefore, this study sets out to add core building blocks, both theoretically and empirically, to our understanding of people's political use of social media and its impact on voting behavior. Particularly, we ask (a) whether postmaterialist and populist citizens make more use of social media politically and (b) how this political social media use might shape their voting behavior.

Based on the available literature, we approach these questions from a perspective dovetailing two main political developments across Western democracies in the last few decades: the rise of belief systems that are elite-challenging and pro-direct participation as well as the spread of social media. Considering these phenomena, one can expect more populist and more postmaterialist voters in particular to use social media politically (cf. Engesser et al. 2017a; Mudde 2007; Norris 1999). However, these relationships have not been theorized or studied at the voter level yet. We propose three pathways to theorize why more postmaterialist and more populist citizens in particular are more likely to use social media politically: individual-level, media-level and supply-side pathways. *Individual-level pathways* argue that individuals holding postmaterialist and populist attitudes are more ideologically inclined toward political social media use. *Media-level pathways* focus on social media infrastructures that are particularly beneficial to these groups and attract political use. *Supply-level pathways* focus on postmaterialist and populist political parties being more visible on social media as a pull factor. Our first research question thus reads: *To what extent do people with populist or postmaterialist attitudes use social media politically?*

Next, we theorize how such political use of social media might entrench voting behavior. We build on the argumentation that people generally look up information/consume media that conforms to their worldview (i.e., Stroud 2008; Jacobs and Spierings 2019; Hameleers et al. 2018). It is likely that for political social media use this is no different. Therefore, we argue that political social media users may get entrenched in already established camps of political attitudes. Thus, our second research question, focusing on the populist and postmaterialist citizens, reads: *Does political use of social media strengthen the relation between political attitudes and voting disposition?*

Empirically, we rely on the Dutch *Work and Politics* dataset and the *Longitudinal Internet Studies for the Social Sciences* (LISS) panel, which uniquely include items on populist attitudes and citizens' political use of social media. Case-wise, the Netherlands enriches the US-focused literature by bringing in an opposite, more European, democratic system: a corporatist democratic (vs. the U.S.' liberal) media



system; a proportional (vs. majoritarian) electoral system; a multi-party (vs. a two-party) system; and a parliamentary (vs. a presidential) system. Moreover, the Dutch parliament includes multiple and various populist (PVV, SP) and postmaterialist (D66, GL, PvdD) parties (Jacobs and Spierings 2019). In brief, this study helps to assess the generalizability of previous finding on political social media use and its effects. Indeed, we find that postmaterialist and populist attitudes seem less connected to political social media use than one could theoretically expect based on US studies. However, there is one important exception: populists and postmaterialists are both more (re)active on social media.

## Theoretical framework

### Political social media use

Following the rise of social media in western democracies, the use of social media for political means has become hotly debated (e.g., Boulianne 2015; Gil de Zúñiga et al. 2014), and based on the maturing literature, we can make a conceptual distinction between interaction and information functions provided by social media (Segesten and Bossetta 2017). *Interactive* ways of political communication, such as direct (public) discussions with politicians, engaging fellow citizens about politics, and diffusion and political mobilization, are readily available on social media (Gil de Zúñiga et al. 2014; Kruikemeier et al. 2013; Segesten and Bossetta 2017). Additionally, social media also provide an *information function*. This entails that social media offer citizens relatively low-cost access to political information and platforms for mobilization, concretely facilitating direct access to politicians and parties, instead of indirectly through traditional media (Gil de Zúñiga et al. 2014; Kruikemeier et al. 2013; Theocharis et al. 2015). Evidently, these functions are dependent on the extent to which and how *politicians and parties* use social media. Indeed, politicians and parties can stimulate citizens to use social media politically (or not), and they can themselves be very active on such media (or not) (Jacobs and Spierings 2016; Stier et al. 2017; Jacobs et al. 2020). Each of these three elements can constitute a pathway via which certain types of citizens may be more prone to making political use of social media. Specifically, we delineate three core pathways to understand this—individual, media and supply side.

While social media thus offer new opportunities to voters for news consumption and interaction with fellow citizens and political actors, the question remains whether these opportunities provided by social media are used equally across society. Early studies, for instance, found differences by socio-demographic groups (e.g., Gil de Zuniga et al. 2012). Moreover, the party-level literature suggests, but does not theorize, that citizens with certain types of political attitudes might differ in their political social media use. The literature specifically points to citizens with a higher degree of postmaterialist or populist attitudes to be more likely use social media politically (Stier et al. 2020; Jacobs and Spierings 2019; Salgado 2018; Engesser et al. 2017a, b; Norris 2001).



Why these two types of political attitudes? Postmaterialism and populism are the only two belief systems in the post-World War II era that ask for more direct forms of participation. They combine anti-elite (or at least elite-challenging) attitudes with a faith in citizens and bottom-up activities. This combination “fits” well with actively participating in political debates, something which social media facilitate, which is not the case with, for instance, Euroscepticism, which is often associated with populism nowadays. Euroscepticism understands the EU as an elite project, but considers increased national sovereignty the answer, rather than more direct impact of citizens in the form of EU-wide referendums or other types of direct participation. Similarly, nationalism can have an electoral affinity to populism (as manifested in the populist radical right) and favors the nation, but does not necessarily ask for more direct participation of citizens.

Below we further theorize why citizens with certain political attitudes—populist and postmaterialist—might be more inclined to use social media politically. We apply each of the three aforementioned pathways first to populist attitudes and then to postmaterialist ones.

### Populist attitudes and political social media use

Regarding populism, we use the commonly accepted minimal definition of populism as a “thin centered ideology that considers society to be ultimately separated into two homogeneous and antagonistic groups, “the pure people” versus the “corrupt elite” and argues that politics should be an expression of the *volonté generale* (general will of the people)” (Mudde 2007, p. 23). This definition of populism and related populist attitudes contains three core features: opposition to the elite, division between the good people and evil elite, and sovereignty of the people (Akkerman et al. 2014).

First, social media offer people with populist attitudes the opportunity to engage with like-minded people, people that they otherwise would not have met. Indeed, the internet provides citizens with populist attitudes an environment to communicate and share information anonymously (Caiani and Parenti 2009). Citizens with a high degree of populist attitudes can therefore anonymously speak about issues that are part of the *volonté general* and propagated by populists but are thought to be taboo or banned from public debate. Moreover, such citizens can voice their concerns to (populist) politicians directly. For a populist individual, social media present an attractive and low-cost method of engaging politically.

Second, given populists’ opposition to the elite, it is expected that people with populist attitudes are more likely to turn to social media for political news, as the traditional media are often seen as part of the elite which populism tries to bypass (Engesser et al. 2017a, b; Schulz et al. 2018; Stier et al. 2020; Schaub and Morisi 2020), especially the “quality” and “public” news outlets (Schulz 2019). The “elitist” traditional media are perceived as untrustworthy, and therefore, these traditional media outlets cannot provide “reliable” political information for people with populist attitudes. In turn, people with populist attitudes resort to other media outlets for political information, such as tabloids, that fit the populist worldview (Mazzoleni



2008). Social media also provide people with populist attitudes direct access to political news from sources perceived as more credible than news that has passed through the “elitist” media (Krämer 2017; Littler and Feldman 2017; Schaub and Morisi 2020). For instance, Stier and colleagues (2020: pp. 437–439) find that populist citizens are more likely to visit “hyperpartisan” websites, though this varies across media systems. More populist citizens are thus expected to feel a better political fit with social media platforms.

Third, on the supply side, there is evidence that rebukes the notion that populist politicians use social media more often, but they still have the reputation of doing so (Engesser et al. 2017a; Jacobs and Spierings 2019; Spierings and Jacobs 2019; Van Kessel and Castelein 2016). This reputation of populist politicians and parties being active on social media may have a positive effect on the political use of social media by people with populist attitudes, who may regard social media as the political communication platform of choice and as the central location where “their politicians” can be found.

From these three pathways, it can thus be expected that people with populist attitudes are more likely to make political use of social media than people without such attitudes:

**H1:** A higher level of populist attitudes held by people is associated with a greater likelihood of making political use of social media.

### Postmaterialist attitudes and political social media use

The second major group for which we theorize higher levels of political social media use are postmaterialist citizens. Postmaterialism asserts that due to rapid technological advancement the basic needs of ordinary people became fulfilled, which in turn has led to the emergence of concern for other, non-material needs (Inglehart 1997). People with high levels of postmaterialist attitudes are concerned with self-expression, a sense of community, environmental values, and a concern for the quality of life (Inglehart 1997; Sotirovic and McLeod 2001). Generally speaking, postmaterialists embrace social change and see political participation as a means to reform the existing society (Sotirovic and McLeod 2001). As such, it has been shown that postmaterialist voters are rather likely to engage in all forms of political participation, including elite-challenging forms of political action (Copeland 2014; Inglehart 2008).<sup>1</sup> Along this line, the three mechanisms that link people with postmaterialist attitudes to political social media use are to a large extent akin to those discussed for people with populist attitudes.

First, given postmaterialists’ valuing of self-expression and inclination to participate in politics, social media provide them with a cheap and easily accessible platform for political activities from an individual’s perspective. Moreover, pro-change

<sup>1</sup> Both populist and postmaterialist emphasize citizen empowerment, but for postmaterialists this is a means to self-actualization (Inglehart 2008); for populists it is about keeping the corrupt elite in check (Akkerman et al. 2014).



attitudes also translate to people with postmaterialist attitudes being more likely to be technological frontrunners, being among the first to adopt new technologies (Jacobs and Spierings 2016). Thus, with the advent of social media it is expected that citizens with postmaterialist attitudes will use the political potential of these platforms relatively early on and more often.

Second, postmaterialists exhibit elite-challenging beliefs, which may not be reflected in the traditional media. Therefore, social media provide people with postmaterialist attitudes a platform for obtaining information about political issues neglected in traditional media environments. (Nowadays this could be issues such as gender fluidity, postcolonialism and queer politics.) However, while this pathway has been discussed and tested for citizens with a higher degree of populist attitudes; this is not the case for more postmaterialist citizens. Indeed, one could argue that core postmaterialist issues (e.g., discrimination of minorities and environmental challenges) have become more mainstream since when they were first coined by Ronald Inglehart. Hence, it seems fair to say that this pathway may be less relevant for postmaterialist attitudes than for populist ones.

Third, concerning the supply side, postmaterialist political actors make more (and more professional) use of social media for political communication (Gibson and McAllister 2011; Spierings and Jacobs 2019). Social media platforms provide postmaterialist political actors a way of interacting with their electorate, and in general these parties are more likely to engage with their electorate interactively (Inglehart and Abramson 1999). This proactive political use of social media by postmaterialist supply-side actors is likely to provide an incentive for people with postmaterialist attitudes to use social media politically.

People with postmaterialist attitudes thus have more incentives to make political use of social media than citizens without such attitudes:

**H2:** A higher level of postmaterialist attitudes of people is associated with a greater likelihood of using social media politically.

### **Political social media use and voting behavior**

Political social media use, in turn, may strengthen and entrench voting dispositions; the concern of our study's second part, which resonates with US-focused research showing that passive social media use was associated with a higher likelihood of voting for Trump (Groshek and Koc-Michalska 2017). To theorize this dynamic in more detail, we built on the logic of proximity voting: voters assess which option best represents their political attitudes. For any form of reinforcement or entrenchment of the attitudes-voting linkage to take place that linkage thus needs to be present. In other words, people with postmaterialist attitudes are more likely to vote for postmaterialist parties, with the same being true for people with populist attitudes and populist parties.

Why might this link between attitudes and voting be stronger if political use of social media increases? As Stroud (2008) argues, political beliefs tend to introduce a bias in the information that a person comes across and consumes. People have a tendency to



want to perceive that they are “right” when it comes to political topics and they are consequently driven to consume media that confirms held attitudes. In turn, the latter may then strengthen the political attitudes that led the selection in the first place.

The general logic described above seems to be a perfect match for social media such as Facebook and Twitter. Facebook, Twitter and other social media alike present a feed or timeline that consists of accounts followed by a user and additional messages deemed interesting for the user determined by some undisclosed algorithm. If a person follows others based on reconfirming previously held attitudes, the content that a person receives and consumes will be less likely to diverge from previously held opinions. Additionally, Iyengar and Hahn (2009) showed that those who display more entrenched attitudes are more likely to pay attention to or seek out confirmatory news. Consequently, information networks emerge in which people are largely exposed to confirmatory information leading to the entrenchment of these views (Flaxman et al. 2016). Altogether, this suggests that the political use of social media leads to more entrenched attitudes. In other words, for people in the reinforcement cycles of online information networks voting choice becomes a narrower option, and the linkage between attitudes and voting behavior becomes stronger.

The logic presented above, however, is not uncontested. General citizens using social media are found to more often encounter views that run opposite to their own opinions rather than encounter views that affirm their opinions (Trilling and Schoenbach 2015; Flaxman et al. 2016). Part of this process is that people still simply run into disconfirming information via their social network, which contains family members, colleagues and former classmates who hold different opinions while still being part of the information network cultivated on social media. If so, the entrenchment effect of political social media use is limited or might even weaken one’s formerly held views.

Given the above, we formulate two opposite hypotheses for both populist and post-materialist parties and attitudes.

**H3a:** The association between populist attitudes and voting behavior is stronger for people who make more political use of social media.

**H3b:** The association between postmaterialist attitudes and voting behavior is stronger for people who make more political use of social media.

**H4a:** The association between populist attitudes and voting behavior is weaker for people who make more political use of social media.

**H4b:** The association between postmaterialist attitudes and voting behavior is weaker for people who make more political use of social media.



## Data and methods

### Case selection

The Dutch data used here uniquely include individuals' political use of social media, political attitudes and voting intention, and the Netherlands constitutes an extreme case for the theoretical mechanisms we examine. The country has an impressive digital infrastructure and widespread social media use. Furthermore, it has an array of populist (both left and right wings) as well as postmaterialist parties, also indicating that such attitudes are relatively widespread. The populist radical right PVV and socialist SP are generally considered populist parties. Their leaders, particularly the PVV's Geert Wilders, are known for their social media use, and MPs of these parties tend to use social media somewhat more aggressively and in ways that stimulate the creation of echo chambers (Jacobs et al. 2020; Jacobs and Spierings 2019; Spierings and Jacobs 2019). Three Dutch parties are generally considered postmaterialist in the literature: the progressive liberals (D66), the greens (GL) and the Party for the Animals (PvdD). These parties tend to be early adopters and relatively professional users of social media, and they are said to be somewhat more connecting and engaging on social media than other parties (Jacobs and Spierings 2019; Spierings and Jacobs 2019; Spierings et al. 2019). Moreover, as highlighted in the introduction, while the Netherlands and the USA share some general characteristics (e.g., being liberal democracies, related levels of media freedom), they are opposites in terms of political and media context. The Netherlands thus provides an excellent case to examine whether the findings from the US context can be generalized to the European context.

### Data

We use the Work and Politics 2015/2016 data (WaP; see Akkerman et al. 2014) which have been gathered by CentERdata among the nationally representative Longitudinal Internet Studies for the Social Sciences (LISS) panel (Lehr 2016). 2087 Panel members of a random sample of the Dutch electorate were approached (69.5% response), therefore including sufficient users of social media as well as non-users. The WaP data itself do not include items on postmaterialist attitudes, vote intention and several control variables, but the base questionnaire of the LISS panel does (waves 6–9), which covers all individuals in the panel from which the WaP data is sampled (CentERdata 2018). In other words, we have matched the different datasets based on the unique IDs of the individuals participating in each of the survey modules we used.<sup>2</sup>

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<sup>2</sup> Used modules: Politics and Values and Religion and Ethnicity (waves 6–9). After matching on the LISS panel ID 132 observations were still missing and dropped.





## Political social media use

Political social media use was measured through three separate items: “Do you follow one or more politicians on Facebook or Twitter?”<sup>3</sup>; “How often do you see messages concerning politicians and or current politics on Facebook or Twitter?”<sup>4</sup> and “How often do you react on messages about politicians or current politics on Facebook or Twitter?”<sup>4</sup>. Because of group sizes and a clear divide between using social media and not using social media (see online supplementary material), we dichotomized the items coding the political users as 1, and the others 0. The resulting three dummy variables—*Follows Politician*, *Political News on Social Media*, and *Reacted on Social Media*—were used as dependent variables testing Hypotheses 1 and 2 (RQ1).

For the second set of analyses (RQ2), we constructed a categorical variable out of the three social media dummy variables: (1) respondents who did not use social media politically, (2) respondents who only made passive political use of social media (i.e., consuming news or following politicians) and (3) respondents who (also) made active use of social political media (i.e., reacting on posts). This grouping reflects the theoretical concept of political social media use distinguishing the informative and interactive functions and was validated by our first set of analyses (see below).

## Populist and postmaterialist voting intention

Populist and postmaterialist voting intention are the dependent variables for testing Hypotheses 3a/b and 4a/b,<sup>5</sup> specifically focusing on populist and postmaterialist parties, as defined above in the case selection section. Populist parties are the populist radical right PVV and socialist PVV; postmaterialist parties are the social liberal D66, green GL and the Party for the Animals. When a respondent indicated that they would vote for any of these parties, they were seen as having either populist or postmaterialist voting intentions. Respondents indicating vote intention for a different party were classified as reference group, and those reporting no vote intention as missing.<sup>6</sup>

## Populist and postmaterialist attitudes

The WaP dataset contains questions on populist attitudes, based on the seminal study measuring populist attitudes (Akkerman et al. 2014). These items are “The politicians in the Dutch parliament need to follow the will of the people,” “The

<sup>3</sup> “Not one,” “Yes, a few,” “Yes, 5 or more,” “Yes, 10 or more,” “I do not have a Facebook or Twitter account.”

<sup>4</sup> “Never,” “Sometimes,” “Once every few weeks,” “Weekly,” “Daily”; not presented to people answering “I do not have ...” on the first item, who were coded never.

<sup>5</sup> Voting intention was derived from the Politics and Values modules of the LISS panel.

<sup>6</sup> Including non-voters in the reference category did not lead to substantially different results.



people, and not politicians, should make our most important policy decisions,” “The political differences between the elite and the people are larger than the differences among the people,” “I would rather be represented by a citizen than by a specialized politician,” “Elected officials talk too much and take too little action,” “What people call ‘compromise’ in politics is really just selling out on one’s principles.”<sup>7</sup> Principal component analyses showed that these items load on one underlying factor.<sup>7</sup> A composite index was calculated as the simple mean on these variables, running from 0 through 4 (higher = more populist).

Postmaterialist attitudes were based on the classic operationalization of Inglehart (e.g., 1997, 2008): respondents were asked to rate one out of four possible political issues as the most important, and one of the three remaining issues as second choice. These are the classic issues: maintaining law and order (1), increasing citizen’s political say (2), preventing price rises (3) and protecting freedom of speech (4). Respondent choosing issues (2) and (4) are considered most postmaterialist and given, respectively, 2 and 1 points as first and second choice, leading to a scale running from 0 to 3 (Table 1).<sup>8</sup>

### Control variables

We control for standard demographic and socioeconomic confounding factors in both sets of analyses: age, education, gender, employment and gross personal income. Age was included coded in years, with 18 years equaling 0. Highest finished education is included categorically. Gender has male as reference category. Employment was included with four categories: employed (reference), self-employed, unemployed, and not active on the labor market. Gross personal income is the square root of a respondents reported income.

The models examining vote intention also include variables specifically known to explain populist and postmaterialist voting. Anti-EU and anti-immigration attitudes are included ranging from 0 to 4. Religiosity is a dichotomous variable (non-religious = reference), and religious attendance was treated linearly, collapsing “every day” and “once a week” because of the low number of cases in these categories.

### Procedure

To test Hypotheses 1 and 2, we use binomial logistic regression models on the individual dichotomized political social media items. As Mood (2010) has discussed succinctly, comparing estimates across logistic regression models can be problematic due to unobserved heterogeneity. To counter this, we also estimate average marginal effects, which is one of the solutions Mood puts forward. As extra robustness checks, we estimated linear probability models and a

<sup>7</sup> Factor loadings > 0.4; Cronbach’s alpha > 0.7.

<sup>8</sup> Models measuring populist and postmaterialist attitudes as dummies were also constructed to check for nonlinearities; where relevant this is reported in the text.



**Table 1** Descriptive statistics of variables Work and Politics 2016 and LISS core study. *Source:* LISS core study (CentERdata 2018) and Work and Politics (Lehr 2016)

Variables	<i>N</i>	Mean	Std.	Median	Min	Max	Missing
Populist voter	1181	0.28	0.45	0.00	0	1	286
Postmaterialist voter	1181	0.26	0.44	0.00	0	1	286
Populist attitudes	1458	2.28	0.51	2.17	0	4	6
Postmaterialist attitudes	1459	1.37	0.90	1.00	0	3	5
<i>Political social media use</i>							
No political use of social media ( <i>ref</i> )							
Active political use of social media	1449	0.11	0.31	0.00	0	1	15
Passive political use of social media	1449	0.25	0.43	0.00	0	1	15
Gender (female = 1)	1467	0.54	0.50	1.00	0	1	0
Age (18 years = 0)	1467	27.42	13.77	29.00	0	48	0
<i>Education</i>							
Primary	1464	0.03	0.18	0.00	0	1	3
Lower secondary ( <i>ref</i> )							
Upper secondary	1464	0.12	0.33	0.00	0	1	3
Vocational	1464	0.29	0.45	0.00	0	1	3
First-stage tertiary	1464	0.25	0.44	0.00	0	1	3
Second-stage tertiary	1464	0.12	0.33	0.00	0	1	3
<i>Employment status</i>							
Employed ( <i>ref</i> )							
Self-employed	1456	0.07	0.25	0.00	0	1	11
Not active	1456	0.27	0.45	0.00	0	1	11
Unemployed	1456	0.07	0.25	0.00	0	1	11
Gross income	1372	41.83	21.23	44.58	0	122.47	95
<i>Political interest</i>							
Not politically interested ( <i>ref</i> )							
Fairly politically interested	1464	0.62	0.49	1.00	0	1	0
Very politically interested	1464	0.15	0.36	0.00	0	1	0
Religious	1457	0.32	0.47	0	0	1	10
Religious attendance	1455	0.85	1.35	0	0	5	12
Anti-EU attitudes	1414	2.58	1.14	3	0	4	53
Anti-immigration attitudes	1441	2.68	0.94	3	0	4	26

multinomial logistic regression on the three-category political social media use variable (See online supplementary material for results).

In the second part of the analysis (RQ2, H3 and H4), we focus on postmaterialist and populist vote intention. After estimating the attitude-vote intention relationship, we expand these models with the interaction terms between postmaterialist/populist attitudes and political social media use.



## Results

### Do populist and postmaterialist politically use social media more?

Table 2 presents the results of the simple logistic regression models and the multivariate logistic regression models on the theorized higher political use of social media by people with postmaterialist and populist attitudes (Hypotheses 1 and 2).

The simple logistic regression models show that particularly people with stronger postmaterialist attitudes are significantly more likely to react to political issues and news on social media. In terms of odds, we find a 32.2% increase for each step on our four-point variable. In other words, the raw figures suggest that more postmaterialist people are disproportionately present among reactors to political issues and news on social media, but they are not significantly more likely to consume political news or follow politicians on social media. In terms of the directly observable (i.e., uncontrolled) differences, populist attitudes are not significantly related to reacting to political news on social media, or for that matter following politicians. However, more populist people are *less* likely to consume political news on social media, with 22.3% lower odds for each step on a five-point scale.

In the multivariate logistic regression models, we control for age, gender, income, employment status and education. Model 1 shows that postmaterialist attitudes and populist attitudes are not significantly related to consuming political news on social media. The negative relationship between attitudes and reading political news is thus no longer present after introducing the controls. Similarly, populist and postmaterialist attitudes show no statistically significant relationships with following politicians (Model 2). Estimating these relationships with dummies for each step on the attitude scales to account for a nonlinear relationship, no impact on passive social media use is found either. However, the results of Model 3 show that both higher postmaterialist attitudes and higher populist attitudes are significantly related to higher levels of reacting to political issues or news on social media. Particularly, after controlling for education, not only more postmaterialist citizens, but also more populist ones tend to react considerably more to political issues and news. The impact of populist attitudes is roughly double that of postmaterialist attitudes. The additional models with dummy variables for the attitudes showed that especially highly populist or highly postmaterialist respondents scored *disproportionally* higher on the political use of social media items. There was a relatively small increase as we went up the scale, but the last categories made larger jumps in reacting to political posts on social media.

While the current theoretical debates did not point toward a markedly different impact of populist and postmaterialist attitude on passive use of social media on the one hand and active use of social media on the other, the results clearly indicate such a difference. One explanation why these attitudes matter only for active political use of social media can be found in the costs of participation. From an individual's perspective, consuming political news and following politicians requires less time-investment or effort than responding to political posts.



**Table 2** Binomial logistic regression on political social media use. *Source:* LISS core study (CentERdata 2018) and Work and Politics (Lehr 2016)

	M1: Political news on social media			M2: Follows politician			M3: Reacted to political issue on social media					
	Simple		Multivariate	Simple		Multivariate	Simple		Multivariate			
	B	SE	B	SE	B	SE	B	SE	B	SE		
<i>Independent variables</i>												
Postmaterial attitudes	-0.036	(0.061)	0.034	0.069	0.168	(0.104)	0.049	0.111	0.279**	(0.093)	0.247*	0.099
Populist attitudes	-0.252*	(0.109)	0.055	0.125	-0.019	(0.184)	0.280	0.207	0.210	(0.163)	0.464**	0.180
<i>Control variables</i>												
Age			-0.049***	0.005			-0.013	0.008			-0.016*	0.007
Female			0.059	0.132			-0.696**	0.215			-0.353 <sup>a</sup>	0.188
Gross personal income			0.003	0.004			-0.004	0.007			-0.010 <sup>a</sup>	0.006
Employment status												
Employed			Ref.				Ref.				Ref.	
Self-employed			0.048	0.256			0.214	0.372			0.496	0.327
Unemployed			0.807**	0.257			0.379	0.394			0.477	0.340
Not active			0.582***	0.176			-0.149	0.301			0.121	0.254
Education												
Primary			0.185	0.383			0.121	0.807			0.542	0.511
Lower secondary			Ref.				Ref.				Ref.	
Upper secondary			0.358	0.237			0.606	0.462			0.159	0.362
Vocational			0.194	0.196			0.585	0.399			0.273	0.301
First-stage tertiary			0.506*	0.205			1.083**	0.399			0.667*	0.307
Second-stage tertiary			0.481*	0.244			1.713***	0.423			0.970**	0.344
Constant			-0.147	0.404			-3.043***	0.699			-3.015***	0.592
Null deviance			1752.000				800.730				954.500	



Table 2 (continued)

	M1: Political news on social media			M2: Follows politician			M3: Reacted to political issue on social media					
	Multivariate		SE	Simple		SE	Multivariate		SE	Simple		SE
	B	B		B	B		B	B		B	B	
Residual deviance		1597.500				753.990						913.320
Nagelkerke $R^2$		0.149				0.076						0.032
Cox & Snell $R^2$		0.108				0.034						0.059
N		1351				1351						1351

<sup>a</sup> $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

Consequently, particularly for active use of political participation populist and postmaterialist attitudes might weigh in, because active participation requires more effort than passive participation. This explanation is in line with the literature on conventional forms of participation whereby more of a push or drive is needed to engage in more intensive forms of participation (Schlozman et al. 2012).<sup>9</sup> At the same time, it might also be that the elite-challenging nature of both ideologies manifests itself more strongly in reacting on social media, compared to consuming, as the former is more closely tied to the challenging of elites (Jacobs et al. 2020).

In summary, our analyses do not fully support Hypotheses 1 and 2. Consuming or passive political use of social media is not related to postmaterialist and populist attitudes; however, reacting to political news on social media (i.e., making active political use of social media) is. These relationships are especially pronounced for extreme categories of populist and postmaterialist attitudes.

### Does social media use influence the attitudes-vote intention linkage?

Below we turn to the second way in which populist and postmaterialist attitudes and political social media use might be related: we examine the hypothesized moderation effect of political social media use on the attitudes-voting linkage (Table 3; Fig. 1). Models 5 and 7 establish this linkage; Models 6 and 8 examine the moderation effect. In Fig. 1, we plotted the marginal effects for a better interpretation of the moderation effects.

As was expected, the results show a strong and significant relation between holding populist attitudes and increased voting intention for a populist party. Strictly speaking, the results do not find a significant relation between holding postmaterialist attitudes and postmaterialist voting intention at  $p < 0.05$ . However, the found relation is borderline significant ( $p \sim 0.051$ ). When examining the vote choice for parties separately in a multinomial modal, postmaterialist attitudes significantly related to higher voting intentions for D66 and GL but was absent for the PvdD (Party for the Animals).

Regarding political use of social media and the strengthening of the link between attitudes and voting intention, the model shows no significant positive moderation effect of political social media use on the link between populist attitudes and voting for a populist party; neither in Model 6, nor in additional models that estimated the moderation effects for people intending to vote PVV and SP separately. While this undermines Hypotheses 3a and 4a, it should be noted that the interaction coefficients are most in line with Hypothesis 3a and that the interaction coefficients are substantial compared to the main coefficient of the populist attitudes. This is particularly relevant as the number of people that vote populist and that use social media politically are relatively small. In other words, we should be careful with fully dismissing the possibility of an entrenchment effect of political social media use for populist

<sup>9</sup> Particularly so, because in the Dutch context, social media use is very widespread, making it very likely that citizens at least consume some political information via social media.



**Table 3** Logistic regression of vote intention on populist and postmaterialist attitudes. *Source:* LISS core study (CentERdata 2018) and Work and Politics (Lehr 2016)

	M5: Vote intention for populist party		M6: Vote intention for populist party		M7: Vote intention for postmaterialist party		M8: Vote intention for postmaterialist party	
	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE
<i>Independent variables</i>								
Populist attitudes	0.769***	0.164	0.633**	0.201	0.176 <sup>a</sup>	0.090	0.311**	0.115
Postmaterial attitudes								
Political social media use								
No use	Ref.		Ref.		Ref.		Ref.	
Passive use	-0.258	0.203	-0.304	0.209	0.190	0.186	0.182	0.188
Active use	0.279	0.253	0.245	0.265	-0.218	0.244	-0.235	0.264
<i>Interaction terms</i>								
Populist attitudes * No use			Ref.					
Populist attitudes * Passive use			0.452	0.397				
Populist attitudes * Active use			0.246	0.450				
Postmaterialist attitudes * No use							Ref.	0.202
Postmaterialist attitudes * Passive use							-0.495*	0.267
Postmaterialist attitudes * Active use							-0.024	
<i>Control variables</i>								
Age	0.000	0.007	0.000	0.007	-0.013*	0.007	-0.013*	0.007
Female	-0.391*	0.178	-0.396*	0.180	0.301 <sup>a</sup>	0.172	0.277	0.173
Employment status								
Employed	Ref.		Ref.		Ref.		Ref.	
Self-employed	-0.333	0.340	-0.325	0.339	0.007	0.318	-0.001	0.320
Unemployed	0.301	0.308	0.289	0.309	-0.232	0.342	-0.239	0.342
Not active	0.332	0.221	0.333	0.222	-0.009	0.226	0.011	0.227



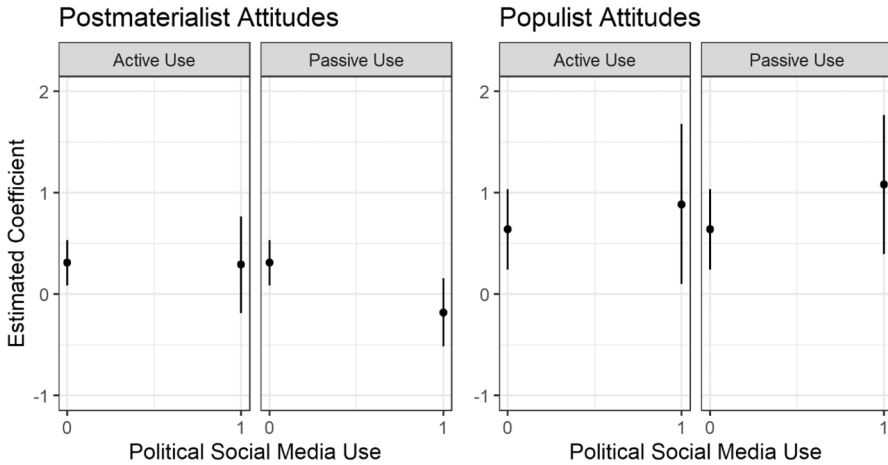


Table 3 (continued)

	M5: Vote intention for populist party		M6: Vote intention for populist party		M7: Vote intention for postmaterialist party		M8: Vote intention for postmaterialist party	
	B	SE	B	SE	B	SE	B	SE
Religious	-0.144	0.214	-0.134	0.214	-0.265	0.214	-0.249	0.215
Religious attendance	-0.278***	0.081	-0.281***	0.081	-0.264**	0.081	-0.267***	0.081
Education								
Primary	-0.376	0.461	-0.344	0.463	0.446	0.627	0.414	0.630
Lower secondary	Ref.		Ref.		Ref.		Ref.	
Upper secondary	-0.873**	0.298	-0.870**	0.299	1.364***	0.342	1.349***	0.343
Vocational	-0.327	0.218	-0.326	0.218	0.813**	0.315	0.794*	0.316
First-stage tertiary	-0.783**	0.253	-0.781**	0.253	1.342***	0.313	1.331***	0.314
Second-stage tertiary	-1.363***	0.373	-1.355***	0.373	1.486***	0.351	1.454***	0.352
Gross income	-0.004	0.006	-0.005	0.006	-0.003	0.005	-0.003	0.005
Anti-European attitudes	0.549***	0.083	0.550***	0.083	-0.256***	0.072	-0.254***	0.072
Anti-immigration attitudes	0.197*	0.096	0.196*	0.096	-0.464***	0.090	-0.468***	0.091
Political interest								
Not interested	Ref.		Ref.		Ref.		Ref.	
Fairly interested	-0.091	0.206	-0.089	0.206	0.255	0.227	0.267	0.227
Very interested	-0.13	0.282	-0.123	0.283	0.549 <sup>a</sup>	0.285	0.548 <sup>a</sup>	0.286
Constant	-1.885***	0.499	-1.861***	0.500	0.072	0.510	0.059	0.513
Null deviance	1268.500		1268.500		1252.800		1252.800	
Residual deviance	1015.4		1014.000		1049.600		1043.300	
Nagelkerke R <sup>2</sup>	0.303		0.304		0.250		0.257	
Cox & Snell R <sup>2</sup>	0.209		0.210		0.172		0.177	
N	1077		1077		1077		1077	

<sup>a</sup>p < 0.1; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001





**Fig. 1** Estimated coefficients of populist and postmaterialist attitudes on voting intention for either a populist or postmaterialist party. *Note* Marginal effect plots with 95% confidence intervals *Source*: LISS core study (CentERdata 2018) and Work and Politics (Lehr 2016)

parties and attitudes too quickly, but there is certainly no widespread impact across the population.

Model 8 does not show the expected positive moderation of political use of social media on the postmaterialist attitudes-voting linkage either. However, the linkage is significantly *negatively* moderated by passive political use of social media ( $B = -0.495, p < 0.05$ ). Especially interesting is the size of the effect: the interaction coefficient completely nullifies the relation between postmaterialist attitudes and postmaterialist voting intention. A respondent with strong postmaterialist attitudes is not more likely to intend to vote for a postmaterialist party if they make passive political use of social media. For respondents scoring high (3) on postmaterialist attitudes and who make no political use of social media, there is about a 30% predicted probability of voting for a postmaterialist party, opposed to about a 10% probability for those making passive political use of social media.<sup>10</sup> It thus seems that postmaterialist citizens who consume more political information on social media are more likely to be tempted to vote for a non-postmaterialist party. With regard to the entrenchment of voting intention, this suggests that social media actually counters a strict entrenchment in our case.

Summarizing, we did not find clear support for Hypothesis 3a and 3b expecting an entrenching effect. Regarding the weakening effect, Hypothesis 4a on populism was not supported either, but we did find support regarding postmaterialism (Hypothesis 4b). The impact of passive political social media use *weakens* the main effect of postmaterialist attitudes on voting, which contradicts the often-suggested

<sup>10</sup> Assuming average income, anti-EU and anti-immigration attitudes, age, religious attendance; being male, employed, non-politically interested, vocationally educated, non-religious.



entrenchment effect, but is in line with recent research showing that social media use actually broadens the range of views one encounters.

## Conclusion

We set out to answer two related questions on the role of social media in politics: to what extent do people with populist or postmaterialist attitudes use social media politically and does political use of social media strengthen or weaken the relation between political attitudes and voting disposition? This examination fills a gap regarding differing levels of political social media use and tests important ideas and theories regarding the impact of political social media use among common citizens.

We expected that populist attitudes were related to higher levels of political use of social media due to social media functioning as an effective bypass of traditional “elitist” media, providing an accessible platform for meeting like-minded people, and because populist politicians have a reputation of making effective use of social media. Most importantly, we found that populist attitudes are indeed associated with higher levels of reacting to politicians and political messages on social media, but not with passive consumption. Regarding the discussed mechanisms, this suggests that particularly the search for interacting with like-minded people may drive the differences in political social media use.

For postmaterialist attitudes, we likewise expected higher levels of political use of social media. Postmaterialist attitudes are generally related to higher levels of reacting to politicians on social media, but do not seem to matter for consuming political news through social media or for following politicians on social media, which stands in contrast to postmaterialist parties being more present on social media (Gibson and McAllister 2011; Spierings and Jacobs 2019). Thus, the supply-side argument seems less important, than the drive to become politically active.

Overall, citizens with postmaterialist attitudes and populist attitudes are generally more likely to engage with political news on social media in an active manner, which might be related to both ideologies’ elite-challenging nature. This is complementary to existing literature which finds that populist parties especially try to elicit reactions from their audience (Jacobs et al. 2020).

The elite-challenging nature of the ideologies also provides one of two complementary explanations for the finding that only *active* social media use was disproportionately high among those with more postmaterialist or populist attitudes; the other explanation being the higher costs and thus stronger incentives needed to actively use social media compared to passive political use of social media. In this study, these different mechanisms cannot be discerned empirically, but they do speak to the existing literature in terms of elite-challenging use of social media (e.g., Jacobs et al. 2020) and the role of costs in political participation (Blais 2000; Schlozman et al. 2012), and future work might be able to collect and analyze data that do allow this. Further, we could not delve deeper into the exact fashion our respondents reacted to political news on social media, as we lacked the necessary items. With our data, we measured whether a respondent is engaged in active or passive political social media use, not the content of that usage. Further research using data about actual social



media behavior could help in understanding what type of reactions are placed by people with postmaterialist and populist attitudes when they chose to react to politicians on social media (cf. Stier et al. 2020). Finally, we caution readers when interpreting the descriptive information on political social media use as surveys on politics might obtain a higher response among politically interested respondents, while at the same time people might underreport political (passive) use of social media due to simply not always remembering having seen something. While this mainly influences descriptive results—which we did not present as core findings—it is less likely to bias explanatory relationships between factors, and if so it most likely leads to slight underestimations of the relationships because the error is in two directions and therefore introduces higher  $p$ -values, not changes in the direction coefficients.

The second part of this study focused on assessing the extent to which political use of social media entrenches voting disposition for populist and postmaterialist voters. We found no support for the idea that an entrenchment of voting intention takes place. Regarding postmaterialist respondents, we even found that making passive political use of social media weakens the linkage between postmaterialist attitudes and wanting to vote for a postmaterialist party. This result contradicts findings from studies covering the USA (Groshek and Koc-Michalska 2017). However, it is in line with studies which argue that entrenchment effects are less prevalent than is often assumed and contrarily show that citizens using social media are actually more likely to be confronted with information that runs counter to their own positions (Flaxman et al. 2016; Trilling and Schoenbach 2015).

Due to the cross-sectional data that we used, we could not fully theorize and test the complete causal mechanism of political social media usage on vote intention. Ideally, one would have panel data in which it is possible to test whether the intervention (political social media usage) strengthens the pathway between attitudes and vote intention. Future research, utilizing larger and more detailed datasets, could theorize and test whether particular forms of passive political use of social media strengthen prior attitudes or voting intentions. Part of this future research agenda is also to focus on what political messages on social media are actually consumed and which of those influence a reader's (or reactor's) voting intention.

Regarding the generalizability of our findings, this study examined political social media use in a country that has a proportional electoral system, a multi-party system, a parliamentary system and a democratic corporatist media system. As such, it is the opposite of the USA, the country where most of the studies are carried out. Given these features, one could expect that the findings of our study would be more modest than the ones from studies on the USA as in the Netherlands there is less polarization, there are more parties, and traditional media tend to display a wide array of political perspectives. This turned out to be true, especially regarding the strengthening of prior attitudes. Given the characteristics of the Dutch case, we expect that our main results are likely to replicate in similar countries in Western Europe and as such might provide a stronger starting point than US-based studies. Regarding generalizability, it should also be noted that we focused on “social media” in general. It may well be that different platforms such as Facebook or Twitter have different effects. Our data did not allow us to make such a distinction, but this is clearly a fruitful direction for future research.



This study provided a first theoretical and empirical examination of the connections between *citizens'* populist and postmaterialist attitudes on the one hand and political social media use on the other. All in all, they seem less connected than one could theoretically expect based on US studies, but there is one important exception: populists and postmaterialists are both more (re)active on social media. This matters, as it is likely to increase their overall visibility via the algorithms of social media platforms (Bossetta 2018).

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