FULL PAPER

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aber was passiert eigentlich dazwischen?
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medienbezogener Wahrnehmungen und politischer Wirksamkeit
für das Protestverhalten

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Abstract: Many studies show a positive relationship between media use and protest participation. Yet, the picture becomes less clear-cut for different types of media (traditional vs. social media). Thus, the mechanisms underlying these mobilizing media effects remain vague. This paper attempts to address this research gap by looking more closely at media-related factors (evaluation of media coverage about one's protest group) and relating them to participatory predictors (political efficacy). Based on a survey of activists ($N = 132$) from randomly selected protest groups in Germany, we analyze both media perceptions and political efficacy as mediators between the use of different information sources and protest behavior. Path analyses showed that using traditional news media and social media was differently related to collective action: In contrast to social media, using traditional news media were related to a positive impression how the media covered one's own group. This perception of the media coverage was linked to greater political efficacy and, ultimately more protest behavior offline. Yet, the model paths differed for activists from different groups, e.g. environmental groups vs. so-called "concerned citizens" who protested against the governmental measures to contain the coronavirus pandemic.

Keywords: social media vs. traditional news use, protest behavior, survey of protest groups, media-related perceptions, political efficacy.

Zusammenfassung: Zahlreiche Studien belegen einen positiven Zusammenhang zwischen der Nutzung von Medien und der Beteiligung an Protestaktionen. Allerdings variieren die Zusammenhänge beträchtlich zwischen verschiedenen Mediengattungen (etwa zwischen traditionellen vs. sozialen Medien). Welche Mechanismen diesen Zusammenhängen zwischen Medienrezeption und der Teilnahme an Protesten also zugrunde liegen, ist nach wie vor unklar. Der vorliegende Beitrag versucht, diese Forschungslücke weiter zu schließen, indem er medienbezogene Faktoren (Bewertung der Medienberichterstattung über die eigene Protestgruppe) genauer untersucht und sie mit partizipatorischen Prädiktoren (politische Wirksamkeit) in Verbindung bringt. Auf Basis einer quantitativen Befragung von Aktivisten ($N = 132$) zufällig ausgewählter Protestgruppen in Deutschland analysiert der Beitrag die Wahrnehmung der

Berichterstattung über die eigene Protestgruppe und politische Wirksamkeit als Mediatoren zwischen der Nutzung verschiedener Informationsquellen und dem Offline-Protestverhalten. Pfadanalysen zeigten, dass die Nutzung etablierter Medienangebote bzw. sozialer Medien die Protestaktivität unterschiedlich beeinflussen: So nahmen Aktivisten, die sich häufig über etablierte Medienangebote informierten, die Berichterstattung über die eigene Gruppe positiver wahr als jene, die sich vor allem über Social-Media-Seiten informierten. Diese Wahrnehmung ging mit einer größeren politischen Wirksamkeit und letztlich mit einer größeren Offline-Protestaktivität einher. Die Modellpfade unterschieden sich für Aktivisten verschiedener Protestgruppen, z. B. Umweltbewegungen vs. sogenannte „besorgte Bürger", die gegen die staatlichen Maßnahmen zur Eindämmung der Corona-Pandemie protestierten.

Schlagwörter: Social-Media vs. traditionelle Nachrichtennutzung, Protestverhalten, Befragung von Protestgruppen, medienbezogene Wahrnehmung, politische Wirksamkeit.

1. Introduction

The link between media and protest behavior almost sounds like a common place. Accordingly, a large number of studies show a positive correlation between the use of media and, for example, participation in demonstrations, boycotts, or petitions (e.g., Strömbäck et al., 2018). Especially, the emergence of transnational movements like *Fridays for Future* or *Black Lives Matter* has put focus on the role of social media as a facilitator of collective action (e.g., Chang & Park, 2021; Enjolras et al., 2013). Although research is highly consistent in suggesting that there is a positive relationship between the use of media and political participation (Grill, 2020), the extent of such effects arising from traditional and social media greatly differs for both political participation in general (Boulianne, 2015; Strömbäck et al., 2018) and protest participation in particular (Arlt, 2017; Masías et al., 2018; Onuch et al., 2021). Thus, it still remains vague which mechanisms are actually underlying these mobilizing effects.

Since media use alone cannot explain the correlation in its entirety, some studies in the context of protest participation suggest to consider media-related perceptions as an underlying mechanism (Choi, 2016; Heiss et al., 2020). Particularly the role of hostile media perceptions (HMP) has been suggested as crucial in the context of collective action (e.g., Bernhard, 2018; Feldman et al., 2017; Tsfati & Cohen, 2005). For activists, a discrepancy may emerge here which has hardly been addressed so far: While they often have to expect a negative, hostile tenor in traditional media (e.g., Gil-Lopez, 2020), personalization options on social media platforms result in activist users being more likely confronted with content that contrasts critical reporting (Bos et al., 2016; Harlow & Harp, 2013). Thus, both traditional media and social media content might yield perceptions that contrast each other.

Yet, studies investigating the link between HMP and protest participation, provide heterogeneous results: While some studies find a direct positive correlation (Bernhard, 2018; Tsfati & Cohen, 2005), Ho et al. (2011) and Feldmann et al. (2017) emphasize issue-specific characteristics or suggest to take also participation-related motivations such as political efficacy into account. In fact, the perception of media content and political efficacy are highly interrelated in the context of protest activity: As visibility and positive public resonance is one aim of most protest movements (Koopmans, 2004; Lipsky, 1968), the media image that they perceive of their group can consequently be

reflected in their feeling of being politically effective. Since this link has hardly been considered so far, we connect two well-known concepts from mobilization research – media-related perceptions and political efficacy – to explain what is in-between using traditional and digital media and protest participation. To do so, we surveyed activists from different protest groups in Germany who actively engaged in collective action in recent years. Our results indicate that traditional and social media differently related to hostile media perceptions, which were, in turn, closely linked to feelings of efficacy. In our study, we deployed the important differentiation between individual and group-related political efficacy, which were both directly linked to news use on social media. Yet, only group-related political efficacy was related to protest behavior.

2. From news media use to protest behavior

To theoretically explore the mechanisms lying between media use and protest behavior, it is helpful to take the process-oriented O-S-R-O-R model as a guide. As a meta-theoretical framework, it relates different classes of variables that shape the influencing process from an initial stimulus to a behavioral or attitudinal response. Yet, the model does not start from the stimulus, but foresees structural, cultural, and motivational predispositions (first O: initial orientations, for example age) that lay the ground for specific patterns of media use (S: stimulus, for example newspaper usage). The model further assumes that it is not the use of different stimuli but their specific processing (R: reasoning, for example political talk with friends) resulting in new orientations (second O: secondary orientations for example political knowledge) that shape political participation (R: response for example voting behavior) (Cho et al., 2009). Broadly speaking, political participation can be all "citizens' activities affecting politics" (van Deth, 2014, p. 351). This includes, for example, voting, membership in political parties or contacting politicians/political organizations. In this paper, we focus on different forms of protest such as participation in demonstrations, which in Deth's classification corresponds to voluntary activities of citizens that address politics and government and take place in non-political space and can thus be distinguished from voting which also addresses politics but takes place within the political arena.

For explaining the link between media use and protest behavior in greater detail, it seems promising to consider *media-related perceptions* and *political efficacy* as underlying mechanisms. Following the O-S-R-O-R model, these two variables refer to the reasoning and the second orientations in the broader relationship between media use and the participatory behavior. In the following we are going to elaborate on the single paths in greater detail.

2.1 Different information sources and media-related perceptions

In the past, there has been a large number of studies that examined the participatory potential of different media. Traditional media (e.g., Karnevo et al., 2005), but increasingly also social media and online news, were found to offer a high potential for mobilization (Boulianne, 2015; Kruikemeier & Shehata, 2017). To account for the fact that people do not use only one single source of information, but increasingly combine news media, Strömbäck and colleagues (2018) contrasted the effect

of different news repertoires on political participation. The amount of political participation online and offline was not predicted by the repertoire public news consumers who mainly listen to the radio, watch public broadcasting news on television, and read quality newspapers. But they found positive correlations, especially for those individuals who frequently used social media platforms to inform themselves about politics. In the light of the Arab Spring but also beyond this context, the use of social media was attested a positive correlation with protest participation (e.g., Tufekci & Wilson, 2012; Enjolras et al., 2013; Masías et al., 2018).

Conclusively it can be drawn that different sources of information can (strongly) influence political participation in different ways (Strömbäck et al, 2018). Following the O-S-R-O-R model, it is not the information sources per se that promote or inhibit political participation but the processing of its content. Regarding protest participation as our central outcome variable, especially perceptions of negative or even hostile coverage of one's group or goals play a central role as a trigger for collective action (Feldmann et al., 2017). Theoretically, this so-called hostile media effect (HME) assumes that the supporters of a political opinion perceive media coverage as unfair, one-sided, or even hostile to their position regardless of whether media is actually biased or not (Vallone et al., 1985; Perloff, 1989). This can lead to a situation in which supporters of different positions feel equally disadvantaged by the same report and, as a behavioral consequence, participate even more strongly in (more radical) forms of protest (Bernhard, 2018; Tsfati & Cohen, 2005). Such effects have particularly been confirmed for people that are highly involved in conflicts (Feldman, 2017) such as activists or demonstrators. Thus, we consider these hostile media perceptions as the first intervening factor between media use and protest participation.

Yet, the extent to which such a hostile media perception is formed depends on the source of information (e.g., Arpan & Raney, 2003; Kim, 2016). Regarding coverage in established media, a large number of content analyses confirms that reporting often delegitimizes protests by framing activism as deviant or threatening behavior (e.g., Gil-Lopez, 2020). So, it seems plausible that activists using traditional media will perceive traditional news media to disagree with their views and thus perceive media coverage in general more critical:

> *H1a: Using traditional news media will be associated with a negative perception of media coverage about one's protest group.*

On the contrary, personalization options on social media platforms flushes more likeminded content into users' newsfeeds supporting their worldview (Bos et al., 2016). Filter bubbles and echo chambers are certainly extreme effects caused by selective exposure and algorithmic personalization. There are studies that disprove the existence of filter bubbles and show that echo chambers occur only at the fringes (Bodó et al., 2019; Bright et al., 2020) – for at least two reasons, we nevertheless assume that activists increasingly come across their topics and opinions in social media: Many protest groups network and organize almost exclusively through social media (Jost et al., 2018), which increases interactivity and thus visibility among themselves. Moreover, in contrast to the majority of users with more moderate world views, activists bring a high level of involvement with their issues motivating them to specifically search for their topics and perspectives (Harlow & Harp, 2013). Of course, this does not pre-

clude activists from being confronted with other issues and opposing opinions. Yet, in contrast to less involved users, they are more likely to have a more curated newsfeed that better reflects their interests. Additionally, this newsfeed is more likely to contrast the usually rather critical reporting of traditional media (Gil-Lopez, 2020).

For activists, using traditional vs. social media as information sources might thus yield contradictory perceptions on how their own group is presented in the public debate. This is also supported by evidence obtained by Harlow and Harp (2013) who show that activists seem to turn their back to traditional media and instead turn towards digital and alternative niche media. It can therefore be assumed that users of social media will gain a particularly negative impression of the general media coverage on their group since their social media feed will present them a perspective that stands most likely in stark contrast to the traditional media presentation:

> *H1b: Using news on social media will also be associated with a negative perception of the media coverage about one's protest group.*

> *H1c: Additionally, this negative perception will even be more pronounced than the negative perception arising from using traditional news media.*

2.2 Media-related perceptions, political efficacy, and protest behavior

Based on the HME, several empirical studies suggest that biased or hostile-media perceptions can promote protest participation (Bernhard, 2018; Feldmann et al., 2017). Considering the O-S-R-O-R model, it can be assumed that the perception of media coverage affects protest participation because it is linked to participation-related motivations: getting public attention is a goal of most protest movements (Koopmans, 2004; Lipsky, 1968). Accordingly, it can be interpreted as a success when activists perceive media coverage of their group which can be linked to the feeling of political efficacy.

Political efficacy is considered a central predictor of political participation (Caprara et al., 2009). It describes the "feeling that political and social change is possible and that the individual citizen can play a part in bringing about this change" (Campbell et al., 1971, p. 187).

Yet, recent conceptual developments suggest to differentiate political efficacy with regards to different levels of action: Most studies measuring political efficacy focus on the individual level and show that this subjectively perceived extent to which *individuals* feel able to achieve political change is important (e.g., Chan, 2016). To theoretically ground the construct and thus improve measurement, Caprara et al. (2009) propose to trace political efficacy back to its theoretical roots – namely social cognitive theory and the concept of self-efficacy. The concept of self-efficacy outlines a personal judgment about how well or poorly a person is able to cope with a given situation based on his or her own abilities and capabilities (Bandura, 2010). In its initial definition, it focuses on "shared beliefs held by individuals about the group" (Bandura, 1997, p. 477) and is thus an attitude that is linked to a *collective* rather than an individual point of view. Lee (2005) therefore argues to capture people's subjective assessment of collective efficacy as a predictor for political participation. A collective sense of political efficacy seems particularly central with regard to pro-

test participation: As protests generally become effective if many people participate, the motivation to take part in such collective actions depends not only on whether individuals feel confident to achieve political goals, but also on how successful this action is perceived to be, which usually depends on how many people are assumed to participate (Klandermans, 1986). Thus, in addition to individual also collective political efficacy can play a decisive role in predicting participation in protests. Using survey data, Ho et al. (2011) have shown that people are more willing to engage in demonstrations, petitions or discussions related to stem cell research, if they feel a sense of political efficacy. This association was mediated through the perception of media bias and trust in government. Therefore, we suppose that the perception of reporting is associated with political efficacy. With regard to the American youth-led movement for gun violence prevention, Haenschen and Tedesco (2020) were able to confirm media effects on both individual as well as collective efficacy.

Hence, in theoretical terms it is reasonable to consider both dimensions: individual efficacy, which has been confirmed in many studies to be a crucial predictor, but also collective efficacy, because it takes into account the origin of the concept and protest as a collective form of participation. Therefore, we further assume that media-related perceptions will be positively related with both individual- (H2a) and group-related political efficacy (H2b).

> *H2: Media-related perceptions about one's protest group will be positively related with both individual- (H2a) and group-related political efficacy (H2b).*

Social networking sites such as Facebook and Twitter are beyond being a source through which information on political and societal affairs can be obtained. These platforms provide protest groups with the opportunity to connect to each other (Bennett & Segerberg, 2012), share common goals and thoughts (Chan, 2016; Lee, 2018), and thus create identity (Hsiao, 2018) even apart from physical interactions. Research further shows that activists do not only share information about protest events on SNS, but also media articles. In doing so, feelings of anger as well as group efficacy can be reinforced (e.g., Jost et al., 2018; Lee, 2018). Personalization algorithms ensure that news articles as well as comments shared by individual activists are also displayed to the other likeminded group members (Bos et al., 2016) which makes the group in general more visible and promotes shared beliefs. This might result in the activists perceiving their group as particularly strong and effective: Lee et al. (2017), for example, showed a positive association between the sum of connections with (other) activists and the feeling of collective efficacy as well as taking part in collective action. In the context of the Sunflower Movement, Hsiao (2018) showed that increased levels of social media activity (commenting, replying and sharing posts, liking comments or posts on the Sunflower Movement etc.) boost both individual and group feelings of political efficacy and thus protest participation. Following this, we further hypothesize that news use on social-media sites (and supposed follow-up communication taking place there) is positively associated with feelings of political efficacy on both the individual and group level:

> *H3: Using news on social media will be positively associated with both individual- (H3a) and group-related political efficacy (H3b).*

Unlike traditional media, such follow-up communication via social media may require less effort and is immediately visible in activists' group. Thus, it cannot be assumed that traditional media support political efficacy in the same way. On the contrary, one can even assume that the delegitimizing tone often found there (e.g., Gil-Lopez, 2020) has a direct negative influence on feelings of political efficacy:

> *H4: Using traditional news media will be negatively associated with both individual- (H4a) and group-related political efficacy (H4b).*

Taking into account that evidence particularly suggests the collective sense of efficacy as a central predictor of collective action, we finally suppose group-related political efficacy will both directly affect protest participation and will serve as a mediator for activists' perception of media coverage on their protest participation.

> *H5: Group-related political efficacy will be positively related to protest participation (H5a) and will mediate the link between activists' media-related perceptions and their protest participation (H5b).*

Overall, we postulate a relationship between the use of different information sources and protest behavior mediated by two key intervening factors – namely perceptions of news coverage and political efficacy. Yet, these underlying mechanisms are likely to differ for traditional news media and social media. Following our assumptions, the use of traditional media is negatively associated with the perception of media coverage and with political efficacy, so we suppose in total a negative correlation of traditional news media with protest behavior via these mediating mechanisms:

> *H6: Using news on traditional news media will be negatively associated with protest behavior – mediated by the perception of media coverage about one's protest group and group-related political efficacy.*

News use via social media can be assumed to be negatively related to perceptions of news coverage as well (H1b/H1c). Yet, social media use is directly positively related to feelings of political efficacy (H3). Thus, no clear implications for indirect effects can be derived. Therefore, we pose a research question for social media use:

> *RQ1: What indirect relations via perceptions of media coverage and group-related political efficacy can be observed between news use on social media and protest behavior?*

3. Method

3.1 Research design and sampling

To test our hypotheses, an online survey has been conducted among activists (*N* = 132) who have been involved in protest actions in Germany in recent years. To establish this special sample, a multistage cluster sampling strategy was applied: First, a random sample of 18 cities in Germany was drawn, stratified by small, medium, and large city type. In these cities, event data (i.e., police reports, press

releases, press reports, and/or information obtained from social media) were used to reconstruct protest events. Such a protest event analysis is a key method of protest research and is often used to systematically assess the number of protests as well as participants and groups (Hutter, 2014). Departing from the protest events which we reconstructed from the beginning of 2019 until June 2020, a total of 150 protest movements and groups were identified that were active both on the streets and online.

These movements cover a very broad range of protest groups: some commenced for a very specific occasion such as protesting against local infrastructure projects; others have a long tradition and have developed organizational structures (e.g. Greenpeace). To contact these protest groups, we relied on the contact forms that they offered. Thus, we approached them with a request to distribute the link to the online survey among their activists through various ways such as E-mail, private messages on SNS, or contact forms on their websites. In our request, we specified how we have identified the groups (all protest events in randomly selected cities since 2019) and asked for their experience in the past. The groups were contacted for a second time a few weeks later to remind them of our study. The total time frame of the online survey using SoSciSurvey software covered June 26 to July 17, 2020.

We cannot provide individual response rates, since we contacted the individual activists via the gatekeepers at the protest groups and movements. These gatekeepers administered the contact forms and contact E-mail addresses and we do not know whether they forwarded our request and if so, to how many activists. Guaranteeing a maximum of anonymity is regarded crucial when surveying activists as they fear of disclosing precarious information (Ogan et al., 2017). Thus, we also decided not to ask participants through which organization they have been recruited.

However, we asked our participants for what type of protest groups they had mainly been active for during the last year (e.g., groups with environmental, political, social goals). This revealed a diverse picture, which fuels the assessment that our sampling procedure generated a diversified sample: Clustering the activists according to the type of groups they have been active for, the largest proportion committed themselves to the protection of animals and the environment (33%), 29% have been active for institutionalized groups affiliated to parties, trade unions, or a church, 20% got active for groups that protested against the measures taken in the Corona crisis, 6% engaged with groups that were concerned with issues related to infrastructure, and 5% with groups from the left political spectrum (not affiliated to a party such as the Antifa), leaving 7% of participants who have been active for various other groups.

The impression of a diversified sample is further supported by the demographic characteristics of the sample: respondents were on average 43 years old (range: 16 to 82 years), 49% were female, and 2% assigned themselves to the option "diverse". Only, in terms of the educational level, the sample appears to be quite homogeneous. 85 percent had a high school diploma, which is not particularly surprising since higher educated people are more willing to participate in general (Andretta & della Porta, 2014).

3.2 Measures

Information use (independent variable). We relied on people's self-reported frequency of using different news sources (see also Schultz et al., 2017): Participants were asked how often they generally use six different platforms and media to obtain current information (see Appendix 1). They indicated, whether they used public broadcasting television, nationally distributed newspapers, local print media, websites and mobile phone Apps of traditional media, news on social media such as Facebook, and news on video platforms such as YouTube "never" (= 0), "less than once a week" (= 1), "at least once a week" (= 2), "several times a week" (= 3), "(almost) daily" (= 4), "several times a day" (= 5). To capture broader usage practices, one consistent usage factor was extracted via exploratory factor analysis (principal component analysis with oblimin rotation; cumulated total variance 60.56%; KMO = .616, $p < .001$; eigenvalue: factor 1 = 2.243): use of traditional news media online and offline ($α$ = .70; M = 3.46; SD = 1.18). Obtaining current information from social networking sites and video platforms loaded on a second factor (eigenvalue factor 2 = 1.391), yet we refrained from computing a composite index, since Cronbach's Alpha for these two items was below an acceptable level ($α$ = .56). Instead, we included both items singularly into our analysis (M_{SNS} = 3.92; SD_{SNS} = 1.95; M_{VP} = 2.89; SD_{VP} = 1.61).

Offline protest behavior (dependent variable). Following the General social survey in Germany (Wasmer & Baumann, 2019), the frequency of participation in demonstrations and signing petitions was recorded on a scale from 1 = "never" to 5 = "often". Additionally, we asked respondents on the same scale whether they engaged in recruiting new members for their group or movement to capture the comparably high level of engagement in our activist sample in a more nuanced way. The time frame of these three items was set by asking, whether participant's have engaged in these activities for the group they have been active for during the last year. Thus, these items do not cover most recent protest activities only (which would all fall into the first phase of the Corona pandemic in Germany), but stretch over a pre-pandemic time frame as well. All three items were summarized in a mean index ($α$ = .65; M = 2.99; SD = 1.05).

Evaluation of media coverage about one's protest group (intervening variable). Participants were asked how they evaluate the media coverage about the group for which they have mostly been active for in recent years. They were asked to rate nine items as semantic differentials (fact-based – opinionated; professional – unprofessional; objective – subjective; emotional – factual; one sided – balanced; abstract – vivid, untrustworthy – trustworthy, too concise – sufficient in scope; exaggerated – cautious; M = 2.61; SD = 1.0; $α$ = .94, following Rössler, 2011) on a scale from 1 to 5.

Political efficacy (intervening variable). Individual- (M = 2.72; SD = 1.07; $α$ = .72) and group-related (M = 3.20; SD = 0.87; $α$ = .67) political efficacy was assessed via established scales to measure political efficacy (Craig, Niemi, & Silver, 1990). All items were differentiated into an individual and collective perspective. The participants were confronted with these items in a randomly rotated manner to avoid biases arising from question order. Participants were asked to indicate on

5-point Likert scales from 1 = "Do not agree at all" to 5 "I fully agree" whether they think that they as an individual/they as a group have the ability to influence the political process, whether they think politicians really care what someone like me/like their group really thinks, and whether they think that they as an individual citizen/as a group have any say in what the government is deciding.
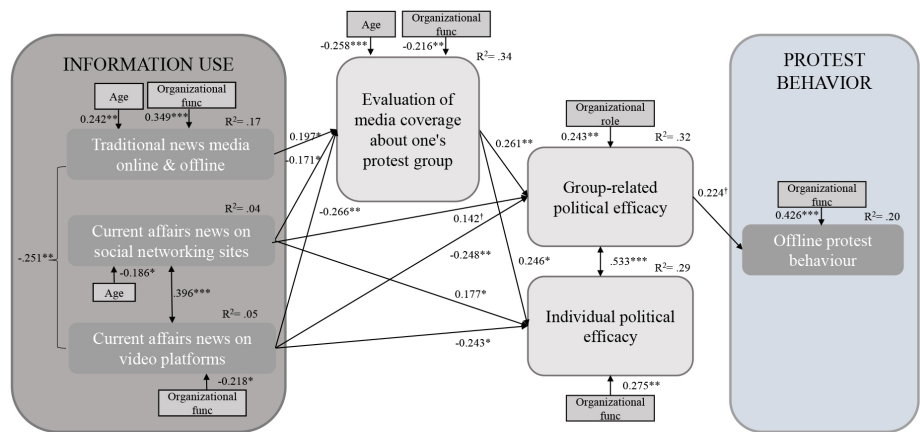
3.3 Analysis

The analysis is based on a path model (R-package Lavaan) in which we controlled for respondents' age and whether the respondents hold an active position in their organisation (dummy variable with 1 = active) indicating differential forms of organizational commitment with the group or movement. Since age and an active organizational role are strongly correlated with various factors in the realm of media use and protest behavior (Schnaudt et al., 2017; van Deth, 2001), including them as controls was supposed to remedy issues of confounding that are particularly a challenge when conducting research on cross-sectional data (cf., Rohrer et al., 2021). At the same time, we aimed at keeping our model parsimonious. Therefore, we refrained from including further controls for which the evidence was not as strong as for age and organizational commitment. Zero-order correlations between all variables that entered the model are displayed in Appendix 2. The model fit the data well (Hu & Bentler, 1999): χ^2 (3) = 3.671, df = 3, p = .299, $RMSEA$ = .041, $SRMR$ = .015, CFI = .997, TLI = .971. In all models, bias-corrected confidence intervals for indirect effects were obtained via bootstrapping (m = 2000).

4. Results

4.1 Hypotheses testing

The path model that was estimated to test our hypotheses, is shown in Figure 1. All parameters reported are standardized. First, the intensity of obtaining current information from different media and platforms was related to participants' evaluation of the media coverage about their protest group: More intensive use of social networking sites such as Facebook and obtaining current news from video platforms such as YouTube was associated with a negative impression of the media representation of one's own group (SNS: β = -0.171, p = .05, Video platforms: β = -0.266, p = .003). On the contrary, more intensive use of traditional journalistic media online and offline was associated with a more positive evaluation of the media representation of one's own group (β = 0.197, p = .03). These findings support H1b with regards to social media, but not H1a with respect to traditional media. Still our results indicate that participants' image of the media coverage about their own protest groups was linked to the question, where they obtained their information from. Moreover, the opposing directions of the effects suggest, that a different picture arises from using different media and platforms. Here, particularly using social media seemed to generate a more negative evaluation than obtaining information from traditional media, which supports H1c.

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Figure 1. Path model[1] linking offline protest behavior to political efficacy, evaluation of media coverage, and using different news sources for current information

Notes. N = 132. Path model estimated with R package Lavaan, standardized coefficients, only significant paths and controls are displayed; †*p* < .10, * *p* < .05, ** *p* < .01, *** *p* < .001.
χ^2 (3) = 3.671, *df* = 3, *p* = .299, RMSEA = .041, SRMR = .015, CFI = .997, TLI = .971.
Indirect effects established via bootstrapping (*m* = 2.000, standardized bias-corrected 95% confidence intervals): news from VP → eval coverage → group-related political efficacy: β = -0.069, *p* = .06
news from VP → eval coverage → individual political efficacy: β = -0.065, *p* = .08.

The impression of the media coverage about one's own group then corresponded with higher political efficacy supporting hypotheses 2a and 2b: Participant's media evaluation was positively linked to both their group-related (β = 0.261, *p* = .003) and their individual political efficacy (β = 0.246, *p* = .01). Thus, a positive media image seemed to nourish people's impression of being able to have an influence on the political process in two different ways – as an individual citizen and also as part of a movement or group.

Additionally, both types of political efficacy were directly related to obtaining news from social media: Getting news from social networking sites was related to both individual and group-related political efficacy. The more participants obtained current information from SNS, the higher both their group-related (β = 0.142, *p* = .09) and their individual political efficacy (β = 0.177, *p* = .05). In contrast to using news from SNS in general, for video platforms a more intensive use correlated with lower levels of both types of political efficacy (group-related: β = -0.248, *p* = .007; individual: β = -0.243, *p* = .03). Findings support H3a and H3b with regards to social media in general, but not with respect to video platforms as a specific social media channel. Obtaining news from traditional journalistic news media was not

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1 Note: One-sided arrows in the path model do not represent a causal claim, but mirror the mathematical model specification. Thus, significant predictors for such paths do not give reason for any causal conclusions. Our study does not allow for causal conclusions by design – it is cross-sectional and non-experimental in nature.

significantly related to either group-related nor individual political efficacy. H4a and H4b could thus not be confirmed.

In sum, the use of different digital media platforms as information sources and the corresponding perception of the media's portrayal of one's own group were found to condition behaviourally relevant attitudes – i.e. feelings of efficacy – with regards to collective protest action. Looking at protest action, the findings of the present study further support the broad empirical evidence on the relationship between political efficacy and protest behavior: Protest behavior was related to group-related political efficacy (supporting H5a), but not to its individual-based counterpart. Yet, this effect was only marginally significant ($\beta = 0.244$, $p = .06$). Regarding the mediating processes postulated in H5b and H6, our results showed that none of the indirect relationships referring to our outcome variable protest behavior turned out significant. However, if we consider that the direct effect of group-related political efficacy on protest behavior is only marginally significant, it does not come as a surprise that the indirect effect fails to reach conventional levels of significance. Still, part of the indirect processes that are postulated by the O-S-R-O-R paradigm were observable in our analysis and provide an answer to our RQ1: indirect effects from using news on video platforms mediated via participants' evaluation of the media coverage about their own protest group on their group-related political efficacy ($\beta = -0.069$, $p = .06$) and their individual political efficacy ($\beta = -0.065$, $p = .08$) turned out marginally significant.

4.2 Additional analyses on the role of the organizational context

Despite being a control variable, the effects estimated for the variable active organizational role offer some enlightening insights for activism research: With regards to obtaining news from different sources, participants with an active role in their protest group or movement were more aligned to traditional news media and less prone to use news from video platforms such as YouTube. Their organizational role led also to a less positive evaluation of the media coverage about their group as compared to participants who did not play an active role in their organization. This finding resonates with the existing research on the hostile media effect, where high involvement was related to a more pronounced impression of an adversarial media tone (Feldman, 2017). Not surprisingly, people with an active organizational role felt more group-related and individual political efficacy and engaged significantly more in offline protest compared to non-active respondents.

Since the group-based perspective appeared to have particular implications for this nexus between information use, the perception of the media coverage about one's own group, political efficacy, and protest behavior, the analysis was extended: We compared activists who have been active for environmental groups such as *Fridays for Future* and activists who got active for groups opposing the governmental measures to contain the Corona pandemic (e.g., *Widerstand 2020*) with all other activists. These groups were chosen for two reasons: First, they represent rather different types of groups in terms of their goals, member-base, and history. Second, activists from these two groups comprised a considerable proportion in our sample. In a first step, we present the results of analyses of variance illustrating

descriptively group differences with regards to all our variables of interest (cf., Table 1). These results revealed that activists from groups opposing the governmental Corona measures stood out in several ways compared to other activists: They used traditional news media significantly more seldom (M_{Corona} = 2.39, SD_{Corona}= 0.93; M_{other} = 3.9, SD_{other} = 1.07) and news from video platforms more often than activists from other groups (M_{Corona} = 4.62, SD_{Corona} = 1.20; M_{other} = 2.47, SD_{other} = 1.48). Furthermore, they evaluated media coverage about their group considerably more negative (M_{Corona} = 1.51, SD_{Corona}= 0.75; M_{other} = 2.79, SD_{other} = 0.88). Also in terms of efficacy, they differed from activists from other groups: They felt a significantly lower level of group-related (M_{Corona} = 2.64, SD_{Corona}= 0.79; M_{other} = 3.36, SD_{other} = 0.91) and individual political efficacy than activists from other groups (M_{Corona} = 2.14, SD_{Corona}= 1.01; M_{other} = 2.99, SD_{other} = 1.11). Finally, activists that opposed the Corona policy of the government, were to a considerable amount less active in their organizations (M_{Corona} = 0.31, SD_{Corona}= 0.47; M_{other} = 0.79, SD_{other} = 0.41). However, this does not come as a surprise given the fact that these groups emerged only few months before. The activists fighting for environmental goals with their most prominent representative, *Fridays for Future*, differed only in one aspect from other activists: They are younger ($M_{Environ}$ = 38.41, $SD_{Environ}$= 17.02; M_{other} = 45.9, SD_{other} = 15.43), which does not come as a surprise given that fact that this group was considered a youth movement. While they differed in almost all variables from those opposing the Corona measures, the differences to other activists (e.g., those concerned with infrastructure issues or those with a party affiliation) turned out non-significant. Remarkably, besides all the differences, the protest behavior itself did not differ significantly between the groups in our comparison (M_{Corona} = 2.87, SD_{Corona}= 1.11; $M_{Environ}$ = 3.23, $SD_{Environ}$= 0.94; M_{other} = 2.87, S_{other} = 1.10; $F(2/129)$ = 1.725, p=.18).

To inspect whether these group differences also yield differences in the mechanisms that we analysed in our path model, model estimates were compared (based on chi-square difference tests) for activists belonging to these different protest groups. The comparison follows the same principle: We compared activists from environmental groups with all other activists and we compared those opposing the Corona measures of the government with all other activists. Figure 2 highlights those model paths were differences turned out significant. All other paths in light grey did not differ significantly for those two special groups as compared to all the other activists. The reported coefficients are not standardized in order to compare them between different models. This group-comparative perspective revealed marginally, but still significant differences in the relevance of video platforms as a news source: For activists from environmental protection groups (n = 44), using news from video platforms was not linked to their evaluation of the coverage of established media about their protest group (b = -0.002, p = n.s.). For all other activists, this relationship was negative (b = -0.210, p < .001, χ^2-Difference = 3.68, p = .06). This suggests that the images that people from environmental groups obtained from using news on video platforms and in the coverage of traditional news media did not stand in a stark contrast to each other. The negative link between obtaining news from video platforms and individual political efficacy was larger for activists from environ-

mental groups (b = -0.282, p < .001) as compared to all other activists (b = -0.120, p = .07; χ^2-Difference = 2.95, p = .09). For activists from protest groups demonstrating against the Corona measures (n = 26), obtaining news from video platforms was not significantly related to their group-related political efficacy; for all other activists this relationship was negative and significant (b = -0.178, p < 0.001, χ^2-Difference = 3.43, p = .06).
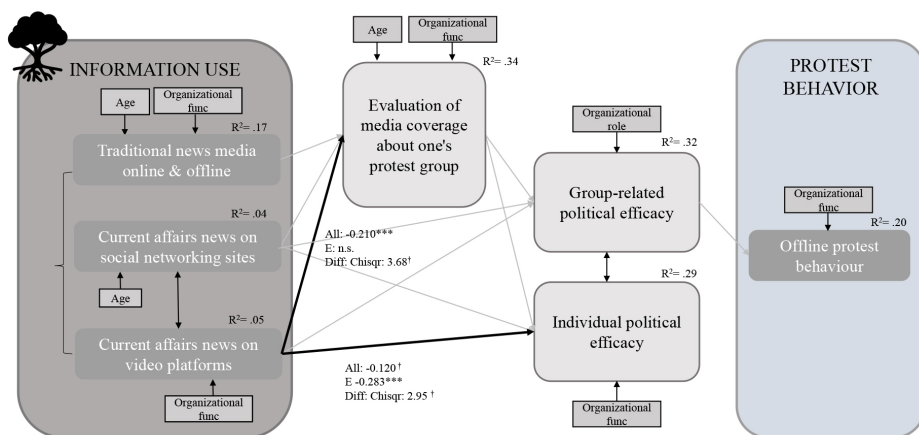
Table 1. Group comparisons for main variables

Measures	Activists from groups…						$F(2/129)=$	$\eta2$
	…opposing the Corona measures n = 26		…fighting for environmental goals n = 44		...with other goals (e.g., infrastructure) n = 62			
	M	SD	M	SD	M	SD		
Protest behavior (1-5)	2.87a	1.11	3.23a	0.94	2.87a	1.10	1.725	0.03
Evaluation media coverage (1-5)	1.51b	0.75	3.02a	0.82	2.79a	0.88	29.366***	0.31
Use of traditional news media (0-5)	2.39b	0.93	3.46a	1.06	3.9a	1.07	19.214***	0.23
News use on video platforms (1-5)	4.62b	1.20	2.48a	1.32	2.47a	1.48	25.305***	0.28
News use on SNS (1-5)	4.81a	1.50	3.3b	2.00	3.98ab	1.95	5.312**	0.08
Individual political efficacy (1-5)	2.14b	1.01	2.68ab	0.92	2.99a	1.11	6.264**	0.09
Group-related efficacy (1-5)	2.64b	0.79	3.3a	0.71	3.36a	0.91	7.406**	0.10
Age	45.54ab	11.08	38.41b	17.02	45.9a	15.43	3.440*	0.05
Organizational function (0-1)	0.31b	0.47	0.73a	0.45	0.79a	0.41	11.703***	0.15

Note. ANOVA, N =132, p < .05, ** p < .01, *** p < .001
Different letters indicate significant differences with p < .05.

Summing up these group comparisons, it turned out that despite the large differences in group means with regards to media use, evaluation of media coverage, and feelings of efficacy, the model paths differed only marginally. Here, especially the role of using video platforms deserves further attention: Activists do not only differ in their intensity of usage, but also in terms of links to media-related perceptions and efficacy.
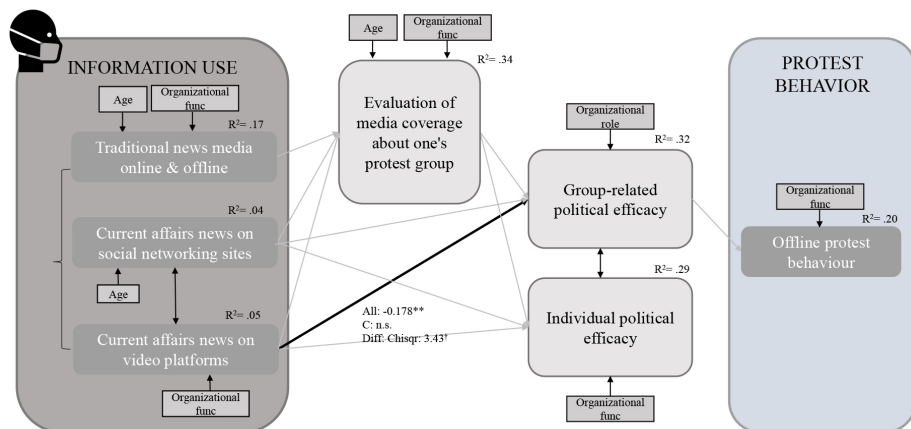
Figure 2. Model comparisons for a) activists from environmental groups and b) activists from groups opposing the governmental Corona measures

a)

Note. n = 132, n_{all} = 88; n_E = 44; Path models estimated with R package Lavaan, unstandardized coefficients; χ^2-Difference-Tests between models with path of interest constrained vs. not constrained. Group variable: Dummy with 1=protest group concerned with environmental and animal protection and 0=all other groups, [†] *p* < .10, * *p* < .05, ** *p* < .01, *** *p* < .001.

b)

Note. n = 132, n_{all} = 106; n_C= 26; Path models estimated with R package Lavaan, unstandardized coefficients. χ^2-Difference-Tests between models with path of interest constrained vs. not constrained. Group variable: Dummy with 1=protest group concerned with Corona measures and 0=all other groups, [†] *p* < .10, * *p* < .05, ** *p* < .01, *** *p* < .001.

5.   Discussion

We aimed at highlighting the mechanisms beyond the well-established link be-tween media use and protest behavior. To do so, we applied the O-S-R-O-R mod-el as a metatheoretical frame that allowed us to conceptualize different media- and participation-related factors in the relationship between media use and collective action. In detail, we considered media-related perceptions and political efficacy as mediating mechanisms.

Our results lend further support to the importance of using different news sources in predicting protest behavior. Yet, not directly, but as the result of a multi-stage process. First, obtaining news from different traditional and net-worked sources yielded different perceptions of how one's own protest group is presented in the opinion-leading established media. As expected, using news on social media was associated with a critical perception of media coverage which can probably be traced back to the assumption that personalization options on social media foster a supporting environment (Bos et al., 2016) and as such build a contrast to established media coverage. Even though research suggests a delegit-imizing, negative tone against protest groups in established media (e.g., Gil-Lopez, 2020), using traditional news media was not linked to negative, but in-stead to a positive evaluation. One explanation may ground on ideas related to selective exposure (Hartmann, 2009): Those activists who share the impression of a favorable media perspective on their group will use these traditional media out-lets to a greater extent, which in turn reinforces their positive impression. Inten-sively using traditional media may also correspond to being used to such a critical tenor in media reporting which in turn does not stain too much on their evalua-tion of the media coverage. Ultimately, since any public attention is often regard-ed as the first step for protest groups to be visible (Rucht, 2004), general visibility might be regarded as more important than the specific tone of debate. Another explanation for this can be traced back to the specific context of our analysis: The largest proportion of our sample committed themselves to the protection of the environment which has recently received a lot of media attention and in some extent also positive resonance (Zabern & Tulloch, 2020). In sum, our findings extend the perspectives of research on the hostile media effect by distinguishing between different media as sources for such biased perceptions.

Additionally, using different media as a source for current news directly and indirectly predicted political efficacy. However, this was only true for social me-dia. Here, the entanglement of different information and communication modes might be the reason for the differential effects: On social networking sites, activ-ists do not only see information regarding their protest groups, but are right next to it offered with various opportunities to engage in follow-up communication with their fellow activists. This follow-up communication may strengthen the ties among activists and their group which also corresponds to higher levels of effi-cacy. Follow-up communication akin to traditional media requires more effort compared to social media platforms. However, the lack of effects arising from traditional media should not be taken as an indicator for the absence of such ef-fects, but might also be grounded in the fact that the power of our model is con-

siderably low for detecting such effects (cf. a power analysis in Appendix 3). It is also possible that group interaction, and thus follow-up communication generally suffered as a result of the Corona pandemic and the first lockdown in Germany as our survey was fielded only few weeks later.

The next step in the O-S-R-O-R process model proposed a link between media-related perceptions and participants' orientations – that is in our study the significant direct link between perceptions of the media coverage and their political efficacy. This finding further supports evidence that has been attained in the study of Ho et al. (2011). Yet, it extends insights, since it additionally allows for differentiating between an individual and a collective perspective – a research perspective which has only recently been proclaimed by Haenschen and Tedesco (2020).

While the antecedents – i.e., news use and media-related perceptions – did not differ largely in their correlation with group-related vs. individual political efficacy, the differentiation was however important for predicting collective protest behavior. We found a significant path only between group-related political efficacy and protest behavior. This is in line with our hypotheses due to the fact that protest is a collective form of participation.

The indirect effects from using news on video platforms mediated via participant's evaluation of the media coverage about their own protest group on their group-related political efficacy turned out – at least marginally – significant. Thus, our mediation hypothesis was at least in part supported, but we cannot fully reconstruct the hypothesized three-way mediation. On the one hand, this is probably due to the small number of cases: The low power of our model for detecting the three-way mediation might be an explanation (cf. Appendix 3) and a non-significant effect should not be interpreted as an evidence for the absence of such an effect. On the other hand, the result must be once again considered in the context of the Corona pandemic. Protest groups faced more difficulties in drawing attention to themselves and their goals due to high restrictions on public gatherings, which could have reduced their sense of political efficacy in the given situation. This might explain why the indirect effects from using news mediated via participant's evaluation of the media coverage about their own protest group on their group-related political efficacy and their individual political efficacy turned out not or only marginally significant.

Our survey has been conducted with a time frame that covered both pre-pandemic and in-pandemic times. It is likely that the groups referred to different time periods, i.e. groups that formed more recently referred to the situation during the Corona pandemic, while groups that have been active for a longer term also considered the period before the Corona pandemic. Such a profound upheaval most likely changed the conditions under which protest groups and movements operated and how they interacted with the media. Yet, we have good reasons to assume that we provide insights that are robust with regard to the impact of the pandemic: With respect to media use, studies show that it increased only in the very beginning and fell quickly after the first surge of the pandemic (Kleis Nielsen et al., 2020; Viehmann et al., 2020). With regard to the perception of media coverage, one could assume that the groups may have benefited to different degrees from the Corona issue: Since the Corona pandemic was very present in news coverage, the Corona protests also

seemed to get more attention compared to other groups. However, we asked participants to evaluate media coverage about their group in general and not during the pandemic in particular. It turned out that those opposing the Corona policy evaluated the media coverage particularly negative as compared to other groups. Still, the mechanisms linked to this evaluation did not differ between different groups. Therefore, one might conclude that although those groups demonstrating against the Corona measures perceived the media coverage as particularly negative, the link to efficacy was the same for all groups. Thus, the mechanisms between evaluation of media coverage and efficacy are the same regardless of the specific evaluation: The more positive one evaluates the media coverage, the more efficacious they feel both as an individual and as a group or movement. Differences, however, appeared with regards to the use of video platforms such as YouTube for mobilizing to collective action. This special role is not only evident in the mediation process itself, but also in the comparisons of groups with different profiles (i.e., environmental protection groups, groups protesting against the measures to contain the Corona pandemic). In addition, the results showed that unlike SNSs in general, news use via YouTube can reduce individual as well as group-related political efficacy. Here, YouTube's specific profile might yield an anchor for explanation: The modus operandi on YouTube seems somewhat special as it has been shown in a case study on an activist video that most of the commenting users do not engage in an extensive exchange with each other, but they mostly leave one or two comments only. Additionally, hate speech and an abusive language were relatively widespread among user comments related to the activists' video (Uldam & Askanius, 2013). Furthermore, it has been revealed for the Occupy Wallstreet movement that activists' information networks on YouTube serve different ends than the communication networks on other social media platforms such as Twitter (Park et al., 2015). Moreover, it has been shown that YouTube is particularly prone to contributing to the radicalization of right-wing political activism (Munger & Philips, 2020). Thus, YouTube might serve different ends than other social media and different ends for groups with different ideological background. Here, disentangling how different group-related characteristics affect the link between media use and collective protest behavior seem to establish a fruitful avenue for future research as our additional analyses imply: The group context can first be influential, since the mechanisms seem to be different for groups with different ideological backgrounds. Second, the group context might be influential in such a way, since media use, media-related perceptions, and efficacy seem to be closely linked to the question whether an activist holds an official organizational position in her or his group or movement.

Still, our results have to be seen in light of some limitations: First, the low willingness to participate and the small number of cases. This results in a considerably low statistical power for some of our hypothesized effects (cf. Appendix 3)[2]. During the

2　The statistical power was especially low for detecting the effects of using traditional media on individual as well as group-related political efficacy. The same holds true for detecting the effect of social networking sites on group-related political efficacy. Finally, all the indirect effects including more than one mediator are also subject to very low statistical power. As a consequence, to detect such effects with our model – given that their true effect size is non-zero – is only likely for very large effects.

field phase, it already became apparent that many activists were concerned about data protection and feared disclosing precarious information in the survey. Ogan et al. (2017) reported similar concerns among the respondents of their survey on the Gezi Park protests. Therefore, we decided not to ask participants through which organization they have been recruited. Still, this approach obviously could not completely mitigate their concerns. Future research will need to pay more attention on how to navigate the balancing act of establishing sufficient information on the sample and, at the same time, being mindful of respondent's data protection concerns.

Particularly with regard to Corona protesters, who are considered to be difficult to reach, we benefited from a fortunate timing: We recruited at an early stage of the development of this movement. At this early point, the willingness to answer our survey was possibly relatively high since these groups might have seen our survey as an opportunity to get (more) attention for themselves. Yet, at this point in time, we probably reached predominantly moderate activists among those opposing the Corona policies as the movement was more heterogeneous in the beginning (Frei et al., 2021) and radicalized itself during later stages (Pantenburg et al., 2021). One more issue has to be considered with regards to our sample: By conducting an online survey, we tried to mitigate the issues that are linked to the more traditional ways of surveying activists (e.g., demonstration surveys which often lack a random selection process, Andretta & Della Porta, 2014). Still, our survey suffers from the same restrictions as all online surveys: not reaching non-Internet users. However, the proportion of non-Internet users among activists is unlikely to be a major constraint given the almost universal spread of the Internet in Germany (Beisch & Schäfer, 2020).

Secondly, the contrast between social and traditional media needs to be further reflected: Recent research on news usage shows that most people have broad news repertoires (Newman et al., 2020) – including news on television, regional newspapers as well as social networking sites and messaging apps. In our survey we found three clusters which largely coincide with the repertoires discovered by Strömbäck et al. (2018). We cannot say conclusively whether these clusters have anything to do with this particular sample of activists. Further research is required on this. Moreover, when it comes to the content, with which recipients are confronted in these different channels, the categories are not entirely distinct from each other. Traditional media, such as public broadcasters, are also very active on social networking sites (Newman et al., 2020). For recipients, this makes it even more difficult to specify in a survey through which channels they received a specific piece of information. Therefore, future research needs new approaches and methods to validly study such media use patterns.

Furthermore, our analysis is based on cross-sectional data inhibiting any causal conclusions (cf., Rohrer et al., 2020). Studies in the context of political participation and media use have already highlighted the reciprocity of correlations (e.g., Kruikemeier & Shehata, 2017; Chang & Park, 2021). Additionally, an extensive body of research highlights many other influencing factors that we could not consider in our study – for example country-level factors such as political freedom (Borah et al., 2021) as well as individual factors such as political knowledge (e.g., Eveland et al., 2003), trust in politics (e.g., Ho et al., 2011) and socio-demo-

graphical variables as gender (Westle & Anstötz, 2020) and education (e.g., Verba et al., 1995). More research in large-scale and comparative designs is needed for further investigating all these factors. Based on our theoretical considerations and empirical findings, it would certainly be fruitful to further investigate group structure, follow-up communication and feelings of community as additional mediating factors.

Summing up, our results yield important insights to the mechanisms underlying media effects on protest behavior. The differences of information sources suggest how traditional media and digital communication platforms can create dissonant partial publics and thus motivate for collective action.

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Appendix 1. Overview of the measures

Measures	Items	Scale
Use of traditional news media online and offline α = .70 *M* = 3.46 *SD* = 1.18	How often do you generally use various media offerings to find out about current events in politics and society? • public broadcasting television • nationally distributed newspapers • local print media • websites and mobile phone Apps of traditional media	0 = "never" 1 = "less than once a week" 2 = "at least once a week" 3 = "several times a week" 4 = "(almost) daily" 5 = "several times a day"
Use of news on social media *M* = 3.92 *SD* = 1.95	How often do you generally use various media offerings to find out about current events in politics and society? • news on social media such as Facebook	0 = "never" 1 = "less than once a week" 2 = "at least once a week" 3 = "several times a week" 4 = "(almost) daily" 5 = "several times a day"
Use of news on video platforms *M* = 2.89 *SD* = 1.61	How often do you generally use various media offerings to find out about current events in politics and society? • news on video platforms such as YouTube	0 = "never" 1 = "less than once a week" 2 = "at least once a week" 3 = "several times a week" 4 = "(almost) daily" 5 = "several times a day"
Offline protest behavior α = .65 *M* = 2.99 *SD* = 1.05	For the group in which you are or have been particularly active during the last year, how often have you participated in the following activities? • Participation in demonstrations • Participation in a petition • Recruiting new members	scale from 1 = "never" to 5 = "often".

Measures	Items	Scale
Evaluation of media coverage about one's protest group α = .94 *M* = 2.61 *SD* = 1.0	How would you evaluate the broader media coverage about the group for which you have mostly been active during the last year … fact-based – opinionated professional – unprofessional objective – subjective emotional – factual one sided – balanced abstract – vivid untrustworthy – trustworthy too concise – sufficient in scope exaggerated – cautious	semantic differentials scale from 1 to 5
Individual political efficacy α = .72 *M* = 2.72 *SD* = 1.07	• I as a person have the opportunity to influence the political process. • I don't think politicians really care what someone like me think. (rev.) • As an individual citizen, I have no real voice in how the government works. (rev).	5-point Likert scales
Group related political efficacy α = .67 *M* = 3.20 *SD* = 0.87	• We as a group have the opportunity to influence the political process. • I don't think politicians really care what our group thinks. (rev.) • As a group, we have no real voice in how the government works. (rev.)	5-point Likert scales

Appendix 2. Zero-order correlations among all variables

		1.	2.	3.	4.	5.	6.	7.	8.	9.
	Information use									
1.	Use of traditional news media online + offline	1								
2.	News use on SNS	.018	1							
3.	News use on video platforms	-.302***	.393***	1						
4.	Evaluation media coverage	.289***	-.233**	-.435***	1					
5.	Individual political efficacy	.269**	-.009	-.342***	.385***	1				
6.	Group-related efficacy	.241**	-.011	-.364***	.443***	.656***	1			
7.	Protest behavior	.186*	-.039	-.187*	.095	.149	.217*	1		
8.	Organizational function	.338***	-.038	-.217*	.359***	.404***	.396***	.328***	1	
9.	Age	.227**	-.184*	-.017	-.187*	.039	-.151	.001	-.046	1

Note. Cell entries are two-tailed zero-order correlation coefficients ($n = 132$). Organizational function is a dichotomous variable and Pearson's point-biserial correlations were used. * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix 3. Results of post-hoc power analysis based on pwrSEM by Wang and Rhemtulla (2021)

Parameter	Value	Power
Offline protest behavior ~ group-related political efficacy (a)	0.22	0.84
Individual political efficacy ~ evaluation media coverage	0.25	0.79
Individual political efficacy ~ Trad. News media	0.00	0.07
Individual political efficacy ~Video platforms	-0.24	0.79
Individual political efficacy ~ SNS	0.18	0.59
Group-related political efficacy ~ evaluation media coverage (b)	0.26	0.82
Group-related political efficacy ~ Trad. News media	0.02	0.05
Group-related political efficacy~ Video platforms	-0.25	0.84
Group-related political efficacy ~ SNS	0.14	0.42
Evaluation media coverage ~ Trad. News media (c)	0.20	0.53
Evaluation media coverage ~ Video platforms (d)	-0.27	0.81
Evaluation media coverage ~ SNS €	-0.17	0.56
ab := a*b	0.06	0.50
abc := a*b*c	0.01	0.03
abd := a*b*d	-0.02	0.11
abe := a*b*e	-0.01	0.04

Note. α = .05, n = 132, Number of simulations = 100 seed = 42.