News with an attitude: assessing the mechanisms underlying the effects of opinionated news
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Assessing the Mechanisms Underlying the Effects of Opinionated News

Abstract
Opinionated news targets communities of likeminded viewers, relies on dramaturgical storytelling techniques, and shares characteristics with political satire. Accordingly, opinionated news should be understood as a specific form of political entertainment. We have investigated the mechanisms underlying the effects of opinionated news on political attitudes using an experimental design that employed manipulated television news items. Findings confirm that opinionated news positively affects policy attitudes via its presumed influence on others and subsequent perceptions of the opinion climate. However, opinionated news also negatively affects attitudes via hostile media perceptions and evoked anger, especially for people with incongruent political preferences. Due to these opposing processes, we found no total effect of opinionated news on policy attitudes. Conditions are discussed under which either the positive or the negative indirect effect is likely to dominate.

Producers of news content continuously change their products in response to economic pressures, technological developments, and audience preferences (Plasser, 2005). One ongoing trend is the blending of news coverage with explicitly expressed opinions as a way of maximizing profit (Gentzkow & Shapiro, 2010; Mullainathan & Shleifer, 2005; Prior, 2013). Although frequently understood as a novelty, the rise of such opinionated news may also be interpreted as a throwback in time (D. A. Jones, 2002; Potter, 2006). After all, news media were initially organized along partisan lines, and political communication was narrowly targeted until half-way through last century (Blumler & Kavanagh, 1999). This changed in the 1960’s, when objective journalism became the standard for what we now understand to be journalism. Cable news (e.g., Fox News) and opinionated current affairs programs (e.g., PowNews in the Netherlands), nevertheless, overtly position themselves in the serious news genre too. However, due to its deviations from journalistic standards, it would be more appropriate to treat opinionated news as a form of political entertainment.

Many have worried about the polarizing consequences of opinionated news because of its ability to create likeminded communities. Previous work, however, has yielded ambiguous findings with regard to this (Arceneaux, Johnson, & Murphy, 2012; Prior, 2013; Stroud, 2010). Furthermore, there are concerns about the internal and external validity of these findings, as well as a lack of knowledge about the mechanisms underlying these effects. We experimentally investigate two indirect processes to give insight into the consequences opinionated news may have for citizens’ political attitudes. Thereby, we shed light on the “black box” between cause and effect, which remained largely in the dark in previous work on the effects of opinionated news. Moreover, whereas previous studies have utilized already-aired original materials, which casts doubt about the ability to disentangle effects of source cues from those of news coverage styles (Arceneaux et al., 2012; Feldman, 2011b), we
utilize carefully crafted experimental television news stimuli. Finally, this was done in a European context, which is less politically polarized than found in the United States.

**Opinionated News as Political Entertainment**

By following some journalistic conventions and frequently labeling their programs as “News,” producers of opinionated news manifestly imply they are in the business of journalism (J. P. Jones, 2012a; Peters, 2010). However, although producing high quality news is the main goal for traditional news media, the coverage of politics and current affairs is only a tool to entertain and attract niche audiences for opinionated news media. Hence, these shows operate according to different standards and employ other storytelling devices. By producing ideologically charged news, these programs attempt to generate relationships with a likeminded audience and hope to appeal to their social needs of belonging to a community (J. P. Jones, 2011). Rather than providing information, opinionated news provides a “safe haven” to its viewers (J. P. Jones, 2011); the quality of news is only of secondary importance (Peters, 2010).

Not constrained by journalistic norms, the point of departure in opinionated news producers’ search for truth is their own beliefs and those of their target audience (Baym, 2013; Peters, 2010). Consequently, opinionated news is often biased in its news coverage (Aday, 2010; Feldman, Maibach, Roser-Renouf, & Leiserowitz, 2012; Jamieson & Cappella, 2008). Placing less of a premium on standards as objectivity, fairness, and accuracy, opinionated news instead takes the raw materials of public life and transforms these into compelling social drama (J. P. Jones, 2012b). Such appealing drama is created by using symbolic language, emphasizing sympathy for the working class, ridiculing opponents, and framing news in terms of polar contrasts such as good and bad, heroes and villains, offenders and victims (Jamieson & Cappella, 2008; J. P. Jones, 2012b; Norton, 2011). Moreover, viewers play an important role in these stories as they are the victims around which many news items are build up.
Opinionated news not only deviates from traditional news in the ways just described, it also has characteristics that overlap and even surpass political satire programs that are generally understood to be political entertainment, such as *The Daily Show with John Stewart* and *The Colbert Report*. First, the performances of both comedians and opinionated news journalists are grounded in personal opinions. Their convictions guide the interpretation of topics presented in both opinionated news and political satire (Baym, 2005; Baym, 2013), which violates the journalistic norm of impartiality (see, e.g., Morris, 2009). Satirists, such as Jon Stewart, thus also perform a “representational role as a voice of a community” (Gray, Jones, & Thompson, 2009, p.16). Second, opinionated news and political satire both rely on discursive integration (J. P. Jones & Baym, 2010). Both genres confute techniques and intentions of entertainment with those of traditional public speech. Ignoring the unstated rules of public speech by the inclusion of local and everyday discourse (e.g., emotion, anger, humor), these programs have become more compelling and credible than traditional news (J. P. Jones & Baym, 2010; Marchi, 2012).

Besides these similarities, there are essential differences between the two formats. Opinionated news intentionally labels itself as “news,” whereas political satire programs consciously brand their shows as “fake news” (Baym, 2005). Consequently, satirists have the freedom to deviate from journalistic standards, whereas opinionated news does so while simultaneously claiming to be journalism. In addition, claims of epistemological certainty are made in opinionated news: This genre does not leave much doubt in its presentation of news. Satire, on the other hand, refuses such attacks on truth and presents a discourse of inquiry and a search for truth (Baym, 2005). Political satirists, thereby, point out that politicians and the opinionated “real” news present “believable fictions,” which actually are just rhetorical
appeals of political partisans (J. P. Jones, 2009). By parodying the format of opinionated news, satiric programs show how opinionated news constructs their own version of truth. Accordingly, fake news sketches a more reliable picture of reality than opinionated news (Gray et al., 2009; Meddaugh, 2010), reminds the public of the ideal standards of journalism (Borden & Tew, 2007; Painter & Hodges, 2010), and leads us to the conclusion that opinionated news is much more political entertainment than it is a traditional form of news.2

Opinionated News and Political Attitudes

News media are often considered to function as the fourth estate in society: Unbiased, impartial and reliable news coverage is believed to be of fundamental importance for a healthy democracy (McNair, 2009; Strömbäck, 2005). In the past, news reporting has, however, been criticized for a lack of variety (Jamieson & Cappella, 2008); but at present with the entrance of opinionated news media, many feel negative about this so-called “Foxification.” The concerns about opinionated news lie in its potential to cause polarization.

People’s attraction to likeminded news results in selective exposure to opinionated news (Coe et al., 2008; Garrett, Carnahan, & Lynch, 2013; Iyengar & Hahn, 2009; Jamieson & Cappella, 2008; Morris, 2005). Subsequently, people’s opinions may polarize, as hearing opinions you already hold echoing in the media provides legitimacy to even stronger believe in these ideas (D. A. Jones, 2002; Sunstein, 2007). Under normal circumstances, opinionated news therefore confirms and reinforces political attitudes (Barker & Lawrence, 2006; DellaVigna & Kaplan, 2007; Druckman & Parkin, 2005; Holbert, 2004; Jamieson & Cappella, 2008; D. A. Jones, 2002; Morris & Francia, 2010; Smith & Searles, 2012; Stroud, 2010).

In experiments with randomized exposure, opinionated news has however been shown to affect the attitudes of opposing groups similarly for topics that seemingly are not very important (Feldman, 2011a; Stroud, 2010). When a topic, by contrast, is thought to be

2 Coe et al. (2008) and Guggenheim, Kwak, and Campbell (2011) have also classified opinionated news as infotainment, though without a theoretical argumentation.
important and recipients are motivated to invest cognitive effort, opinionated news seems to reinforce the attitudes of those with political preferences congruent with this news, but evoke counterarguing and boomerang effects for people who hold incongruent views (Arceneaux, Johnson, & Cryderman, 2013; Jamieson & Cappella, 2008; Levendusky, 2013; Meirick, 2013; Taber & Lodge, 2006). The processes underlying this motivated reasoning (Kunda, 1990), nevertheless, remain to be explored.

Two well-established theories are frequently linked to opinionated news and may help to explain the effects it has on political attitudes: the model of “Presumed Influence” (Gunther & Storey, 2003) and the “Hostile Media Phenomenon” (Vallone, Ross, & Lepper, 1985). These theories do not formulate expectations regarding effects on people’s attitudes directly, but are naturally linked to theoretical assumptions that do predict attitudinal effects. We hypothesize and empirically test a model of opinionated news effects based on a concatenation of these theories to understand the mechanisms underlying the effects of opinionated news. By focusing on cognitive and affective properties, this study acknowledges that beliefs and emotions are distinct determinants of political attitudes (Crites, Fabrigar, & Petty, 1994; Ottati, Steenbergen, & Riggle, 1992).

**Opinionated News and the Consequences of Presumed Influence**

Most people find it hard to believe that they themselves are influenced by media content, but they find it rather likely that “others” are vulnerable to media messages, especially for socially undesirable and persuasive (Paul, Salwen, & Dupagne, 2000; Perloff, 1999; Sun, Pan, & Shen, 2008). Davison (1983) dubbed this the “third-person effect.” More generally, people tend to overestimate media effects on others irrelevant of how they perceive themselves to be affected; they attribute a strong presumed influence to the media (Gunther & Storey, 2003; Shen & Huggins, 2013). As political messages have also been shown to cause perceptions that others are being influenced (Paul et al., 2000), and because opinionated news,
much more than objective news, carries a straightforward persuasive message, we expect opinionated news to evoke stronger presumptions that other people’s opinions are influenced than does objective news:

H\textsubscript{1a}: Opinionated news has a stronger presumed influence than objective news.

How strongly people expect others to be affected by media content may have subsequent consequences (Davison, 1983; Xu & Gonzenbach, 2008). The “Persuasive Press Inference” (Gunther, 1998) argues that exposure to mass media, opinionated news in particular, affects perceptions of public opinion (Gunther & Christen, 2002; Hwang, Pan, & Sun, 2008; Mutz & Soss, 1997), via a presumed media influence on others (Choi, Yang, & Chang, 2009; Gunther & Christen, 2002). Perceptions of the opinion climate are affected by expectations of presumed media influence, because people extrapolate the small sample of news they see to news more generally and assume that such news reaches many of their fellow citizens (Gunther, Christen, Liebhart, & Chia, 2001; Shen & Huggins, 2013). Impressions of the opinion climate will thus be driven by a presumed media effect on others (Davison, 1983; Gunther & Christen, 2002; Tsfati & Cohen, 2005; Tsfati, 2007). Hence, we expect the following:

H\textsubscript{1b}: The stronger the presumed influence, the stronger the perception of opinion climate congruence.

Perceptions of the opinion climate may subsequently sway attitudes in the direction that is supported by the perceived majority of people (Joslyn, 1997). A variety of reasons have been put forward to explain this relationship; however, only two apply to the formation of political attitudes in response to mass media. Explanations that relate to social pressure and
refer to the classic studies of Sherif (1936) or Asch (1951), for example, seem invalid (Mutz, 1998), because they require face-to-face interactions and some possible punishment for not conforming to the majority. In case of private attitudes and mass media information, both conditions are not met. A “Bandwagon Effect” (Simon, 1954) is also unlikely for opinion formation (Mutz, 1998), as conforming an attitude to the majority will not bring about as much glory as going with a winning political candidate or sports team.

Mutz’s (1998) notion of “Impersonal Influence” puts forward two processes explaining why public opinion perceptions do guide attitude formation. First, people may adjust their attitudes to a presumed majority, because this perception can heuristically be used as trustworthy information about reality (Joslyn, 1997; Mutz, 1998). However, public opinion information will only heuristically be used in case of little involvement with a topic and unwillingness to exert mental effort (Mutz, 1998). When by contrast a topic is perceived to be relevant, public opinion perceptions stimulate people to consider why the majority holds a certain opinion. Hence, the arguments of this majority are rehearsed, these ideas become more salient, and eventually people’s attitudes move in the direction of the majority (Joslyn, 1997; Mutz, 1998). Accordingly, we expected the following:

**H1c**: Opinion climate perceptions positively affect attitudes.

Previously, we hypothesized three separate but successive relationships that are naturally linked together as already assumed in the first thoughts on the third-person effect (Davison, 1983). Hence, we assume that people change their attitudes in line with the way they expect the media to affect others, which has been called the “Influence of Presumed Influence” (Gunther & Storey, 2003), and has been demonstrated in few studies until now (e.g., Chia, 2006; Paek, Gunther, McLeod, & Hove, 2011). In sum, we expect a positive
indirect effect of opinionated news on the attitude toward a reported issue via the presumed effect on others and perceptions of the opinion climate. The top half of Figure 1 visually presents this indirect effect.

\[ \text{Figure 1. Theoretical model of the indirect effects of opinionated news with specified hypotheses (H)} \]

**Opinionated News and the Consequences of the Hostile Media Phenomenon**

Besides the perceptions of presumed media influence and subsequent consequences, attitudes may also be affected by their perceptions of the news itself. The current literature provides abundant evidence for a so-called “Hostile Media Phenomenon” (Hansen & Kim, 2011; Vallone et al., 1985). Multiple studies have shown that people subjectively assess the degree of bias in news relative to their own political preferences: Liberals perceive a conservative bias in objective news, whereas conservatives perceive a liberal bias in the same news coverage (Gunther, 1992; Morris, 2007). This happens because people consider their own opinion as the outcome of objective analysis and, at the same time, find it is easy to
believe that other opinions must be biased or simply wrong (Feldman, 2011b; Giner-Sorolla & Chaiken, 1994) in order to protect their self-esteem and reduce cognitive dissonance (Richardson, Huddy, & Morgan, 2008).

With the proliferation of opinionated news, scholars also investigated how audiences perceive news that is not objective but opinionated. Findings point toward a “relative hostile media effect”: Perceptions of bias in opinionated news are strongest among those with incongruent political preferences, whereas those who hold views in line with the source, perceive less bias in such opinionated news or fail to see a bias at all (Arceneaux et al., 2012; Coe et al., 2008; Feldman, 2011b; Gunther, Edgerly, Akin, & Broesch, 2012). Hence, we expect the following:

\[ H_{2a}: \text{Opinionated news evokes stronger bias perceptions than objective news, especially among people with incongruent political preferences.} \]

Naming this a hostile media effect implies that news, and opinionated news in particular, may evoke negative emotional reactions due to perceptions of bias. Arceneaux, Johnson and Murphy (2012), for example, showed that people evaluate opinionated news programs that are incongruent with one’s attitudes worse on aspects of hostility, fairness, and quarrelsomeness. Exposure to disliked news has also been shown to raise cortisol levels among audiences, indicates evoked psychological stress (Blanton, Strauts, & Perez, 2012).

In addition, several scholars have put forward reasons why news that is perceived to be biased can evoke anger responses. First, failure to adhere to normative standards is likely to yield negative emotional responses: Psychological research has shown that violating social rules causes anger (Averill, 1982). News that is perceived to be biased violates normative standards of objectivity and factuality that people expect the news media to adhere to, and
thus may elicit anger responses (Arpan & Nabi, 2011; Hwang et al., 2008). Moreover, opinionated news not only violates these assumptions, but perceptions of bias also are often incongruent with people’s orientations (Shen & Dillard, 2007) due to the hostile media phenomenon. When people perceive news to be biased against themselves, they are likely to interpret this as an offense, which causes feelings of injustice and unfairness (Arpan & Nabi, 2011; Hwang et al., 2008).

Building on the “Cognitive Appraisal Theory” (Roseman, 1991; Scherer, 1993), which has also been used in other political communication studies (Aarøe, 2011; Gross & D’Ambrosio, 2004), it has been shown that evaluations and interpretations of stimuli determine emotional responses (Moors, 2013). Such appraisals, which relate to goal congruence, certainty, perceived cause (self, other, circumstantial), and coping potential, determine the kind of emotion that will be experienced. Following the appraisal-emotion system (Roseman, 1991), one would predict that exposure to news that is perceived to be biased will cause anger: The situation takes place (certainty), is goal incongruent, caused by another, and audiences decide themselves how to cope with it. Moreover and substantiating the causal argument, studies have recently shown that cognitions precede (Nummenmaa, Hyönä, & Calvo, 2010) and influence (Weibel, Wissmath, & Mast, 2011) emotional reactions as hypothesized by the cognitive appraisal theory. Hence, we expect the following:

H26: Perceptions of bias yield anger.

Finally, we expect the evoked anger to affect people’s attitude toward the news item topic that caused this emotion. Although still frequently overlooked, emotions have been shown to be independent determinants of attitudes in general (Crites et al., 1994), and political attitudes more specifically (Marcus, 2000; Ottati et al., 1992). There are two explanations why
anger would negatively affect the persuasiveness of news coverage. First, people tend to make mood-congruent judgments (Mayer, Gaschke, Braverman, & Evans, 1992). Being in a negative mood cues people to retrieve affectively congruent knowledge and considerations (Chang, 2001; Erisen, Lodge, & Taber, 2012); hence, people’s mood mostly corresponds to the connotations of their ideas (Mayer et al., 1992). Thus, a news story that evokes anger, for instance due to perceptions of bias, increases the chance that one’s opinions are based on negative information, which causes negative, rejecting and disapproving judgments (Erisen et al., 2012; Mayer et al., 1992; Munro et al., 2002).

Second, anger is an approach-based emotion that motivates people to engage with a message and to carefully process its information (Nabi, 1999; Nabi, 2002). This stimulates critical thinking, increases the likelihood to counterargue information and to resist persuasive messages (Nabi, 1999; Pfau et al., 2001); consequently, anger responses have a negative effect on attitudes (Erisen et al., 2012; Nabi, 2002). Therefore, we expect to replicate previous studies that found anger to function as a negative mediator between exposure to a message and attitudes toward the issue dealt with in that message (Lecheler, Schuck, & De Vreese, 2013; Pfau et al., 2001; Shen & Dillard, 2007; Yoo & MacInnis, 2005).

**H2c**: Anger negatively affects attitudes.

In short, people most likely perceive opinionated news to be more biased than objective news, especially when their political preferences are incongruent with that news coverage. In turn, perceptions of bias evoke anger, which most likely negatively affects the attitude toward the message opinionated news tries to convey. This indirect effect, as presented in the lower half of Figure 1, will thus be stronger as people’s political preferences are more incongruent with the news they see.
Method

To test our hypotheses an online experiment was fielded on May 30 and 31, 2013. A sample of Dutch adults was recruited via the online panel of PanelClix in exchange for a small financial compensation. Quotas were set to ensure the sample varied on age, gender, educational level, and political orientation. Two hundred forty-one participants successfully finished the questionnaire. Their ages ranged from 18 to 65 ($M = 41.66$, $SD = 13.67$), 46.9% were female, median education level was intermediate vocational education, and 32.1% had a bachelor’s degree or higher; 33.1% identified themselves as having a left-wing political preference, 36.1% a right-wing political preference, and 31.5% indicated not to have a left nor a right political preference. On average, it took 33 minutes to complete the experiment. Invitations were only sent to panel members who did not live in the immediate vicinity of the news item topic to which they would be exposed in the experiment.

Experimental Design

After providing informed consent, participants were randomly assigned to one of four conditions.3 We used a 2 (reporting style: objective vs. opinionated) x 2 (source cues: NOS Journaal vs. PowNews) between-subjects factorial design.4 Thus, participants watched a news video that was manipulated on two aspects: 1) the reporting style, and 2) the source of the news. About sixty participants were assigned to each individual condition: objective NOS condition ($n = 61$); objective PowNews condition ($n = 60$); opinionated NOS condition ($n = 59$); and opinionated PowNews condition ($n = 61$).

3 Randomization was successful as participants in the different conditions did not significantly differ on the following characteristics measured in the pre-test questionnaire: age, gender, education, political preference (left versus right), opinion about NOS Journaal, opinion about PowNews, external efficacy, frequency that one talks about politics, need for cognition, and social trust. The stimulus and questionnaire were approved by the ethical review board of University of Amsterdam.

4 A control condition was also part of the experimental design, but due to space limitations will not be included in this paper.
News items were visually manipulated to give them the source characteristics of either *NOS Journaal* or *PowNews*, which both are well-known Dutch news programs. *NOS Journaal* is the news program with the highest ratings in the Netherlands. *NOS Journaal* has a long history, starting in 1956, and aims to cover news in a serious, unbiased and objective manner. The Dutch audience largely agrees with this, as 81% believe *NOS Journaal* reports the news objectively (Peil, 2005). *PowNews*, on the other hand, has a short history and was broadcasted for the first time in 2010. The mission of *PowNews* is to be a counterbalance to the established political, administrative and journalistic actors, and its journalists are free to express their opinions (PowNed, 2009). Content analyses confirmed that *PowNews* reflects the opinionated reporting style: journalists of this program ask insinuating questions and frequently formulate these as counterarguments; their journalists make more evaluative and judgmental remarks; and more support and criticism is expressed in reports of *PowNews* than in those of other news programs (Pijnenburg, 2012; Scholten, Schaper, Ismaili, Welbers, & Ruigrok, 2011).

**Stimulus Materials**

The topic of the manipulated news items was the widening of Highway A27 at the expense of a nature area. This topic was selected because it has a clear debate structure with advocates and opponents, and because *NOS* and *PowNews* both covered it in a relatively similar item in terms of time, images, and actors in October 2012. Hence, we could utilize these items to create manipulated stimuli that were both internally and externally valid. Furthermore, the topic was considered to be important by about half of the participants (61%; $M = 5.83$, $SD = 2.16$, on a 0 to 10 scale), and 29.9% had never heard of this specific issue.

Four items were crafted to have control over source cues independently of reporting style. The original *NOS Journaal* item was used as the basis and manipulated in two ways.
First, the voice-over text of the original item was replaced by two manipulated voice-over texts recorded by one professional journalist: In one text no opinion was expressed regarding the widening of the highway (objective); the other text explicitly demonstrated a preference in favor of widening the highway (opinionated).

Opinion was created in the latter text by including characteristics typical of opinionated news (Conway et al., 2007; J. P. Jones, 2012b; Norton, 2011; Pijnenburg, 2012): expressing support for the working-class, using binary positions, a catch phrase as “the hard working Dutch people,” and a remark implying that everybody should agree with the journalist. The manipulation check confirmed that participants perceived opinionated news ($M = 3.96, SD = 2.80$) to be much less impartial (scale 0 to 10) than objective news ($M = 6.67, SD = 1.72$), $t(187.11) = 8.85, p < .001, d = 1.17$, and considered the opinionated items ($M = 3.69, SD = 2.77$) to belong relatively more to the entertainment genre (10) than to the news genre (0) compared to the objective items ($M = 2.50, SD = 2.32$), $t(220.16) = -3.57, p < .001, d = 0.47$.

Second, two extra items were created by transforming the objective NOS Journaal item and the opinionated NOS Journaal item into two items with PowNews source cues (see Figure 2). The opening and ending sequences of NOS Journaal were replaced with those of PowNews, the NOS logo in the top-left corner was covered with the logo of PowNews’s broadcaster, and the PowNews headline banner (a so-called crawl; note that NOS Journaal does not have a banner) from the original PowNews item was inserted at the bottom of these two videos. This banner also covered the NOS logo on microphones during interviews, so participants could impossibly see this item had originally been broadcasted by NOS Journaal. Because the source cues were very obvious, and because these two programs were very
well-known in the Netherlands, only participants who correctly indicated the source which they were exposed to in the manipulation check item were used in the analyses.\(^5\)

![Screenshots of the experimental stimuli with NOS (above) and PowNews (below) source cues.](image)

**Figure 2.** Screenshots of the experimental stimuli with NOS (above) and PowNews (below) source cues.

**Measures**

Next, the operationalization of the dependent variable, moderator and mediators are described. Descriptive statistics and a zero-order correlation matrix are shown in Appendix A.

**Dependent variable: Attitude toward widening the highway.** How much people agreed with the plan to widen the highway was measured with the following four 9-point scales: (a) “I believe the widening of the A27 should start as soon as possible,” (b) “The widening of the A27 is essential,” (c) “Before the A27 will be widened, more alternatives should first be examined,” and (d) “Protecting nature is more important than widening the A27.” The latter two were recoded, so higher scores indicated more support for quickly

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\(^5\) Not correctly recognizing the source probably indicates that a participant had problems playing the video or did not answer the post-test survey seriously. For this reason, 10 participants (4.1%) were removed from the sample. These participants were randomly distributed across conditions, $\chi^2 (3) = 0.49, p = .921$. Including these participants in the analysis did not substantially affect neither model fit nor the estimated direct and indirect effects.
widening the highway. The four items formed a reliable scale (Cronbach’s $\alpha = .90$) and were used as indicators of the latent attitude construct with standardized factor loadings of respectively .98, .84, .74, and .70.

**Moderator: Political preference.** Participants identified their political preference in the pre-test questionnaire. They could indicate their political preference on a 7-point scale from -3 (left) to 3 (right). We used this measure of general political ideology ($M = -0.02, SD = 1.41$), because the left-right continuum is the standard way in the Netherlands to indicate a person’s political orientation and reflects the values people hold on several issues (Piurko, Schwartz, & Davidov, 2011). People’s interpretation of news coverage may therefore largely occur along the lines of this left-right continuum. Moreover, given that the cleavage between left-wing and right-wing preferences pertains to a wide range of issue, focusing on general ideology rather than participants’ topic leaning allows an understanding of the hostile media phenomenon that may go beyond the topic of a highway broadening in the Netherlands.

**Mediators: Presumed influence.** Participants were asked how strongly and in which direction the opinion of others would be affected by the news item to which they were exposed. This perception was indicated on an 11-point scale ranging from -5 (people become against the widening) via 0 (people will not be affected) to 5 (people become in favor of the widening) ($M = 0.74, SD = 1.81$).

**Perceived opinion climate.** Participants were asked to estimate the percentage of Dutch people that favor widening the highway. They could indicate this with a slider, so they could intuitively choose all possibilities between 0 and 100 percent ($M = 61.81, SD = 14.73$).

**Hostile media perception.** Perceptions of news bias were measured with an 11-point scale from 0 (biased) to 10 (objective). The scale was recoded, so higher scores indicated stronger perceptions of bias in a news item ($M = 4.67, SD = 2.68$).
Anger. Two frequently used items (see Arpan & Nabi, 2011; Chang, 2001; Hwang et al., 2008; Shen & Dillard, 2007; Yoo & MacInnis, 2005) were employed to measure people’s emotional state of anger. In the posttest, participants were asked how strongly (on 8-point scales) they experienced feelings of anger and annoyance while seeing the news item. These two variables were added together and formed a reliable scale (Cronbach’s $\alpha = .74$; $M = 4.98$, $SD = 3.84$).

Analysis

Because we were dealing with a multicategorical independent variable, multiple mediators, and a moderator, a sophisticated analytical design was needed. We took up Hayes and Preacher’s (2013) approach to estimating models with a multicategorical independent variable and indirect effects. Following this procedure, we included $k - 1$, three in this case, variables in the linear model. This is comparable to dummy coded variables in an ordinary least squares (OLS) regression. However, instead of dummy coding, we applied contrast coding (Serlin & Levin, 1985), so we could analyze the three contrasts of interest in one model (Hayes & Preacher, 2013): exposure to the objective NOS item relative to the opinionated PowNews item; the objective PowNews item relative to the opinionated PowNews item; and the objective NOS item relative to the opinionated NOS item.2 We used the contrast coding scheme as shown in Table 2. The effect coefficients of the contrast coded variables replicated the post-hoc differences between conditions in an ANOVA, and model fit was exactly the same as for a model with dummy coded treatment variables.

Table 2. The contrast coding scheme.

<table>
<thead>
<tr>
<th>Condition:</th>
<th>Objective NOS</th>
<th>Objective PowNews</th>
<th>Objective NOS</th>
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The analyses were conducted using structural equation modeling in *AMOS 20* with maximum likelihood estimation. A partially latent structural regression model was used with the dependent variable (attitude toward widening of the highway) included as a latent construct (see Figure 3). The latent attitude factor was formed by the four indicators just described. A covariance was specified between the two recoded indicators, and between the “as soon as possible” and “nature is more important” indicators to satisfy model fit requirements. For the same reason, the model specified a direct effect from the presumed influence variable on the attitude factor. The final model fitted the data well: $\chi^2(59) = 75.55, p = .072$; comparative fit index (CFI) = .99; standardized root mean square (SRMR) = .05; root mean square of approximation (RMSEA) = .04 with 90% confidence interval (CI) [.00, .06].

<table>
<thead>
<tr>
<th>Opinionated PowNews</th>
<th>Opinionated PowNews</th>
<th>Opinionated NOS</th>
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<tbody>
<tr>
<td>Opinionated NOS</td>
<td>-0.5</td>
<td>0.25</td>
</tr>
<tr>
<td>Objective NOS</td>
<td>-0.5</td>
<td>0.25</td>
</tr>
<tr>
<td>Opinionated PowNews</td>
<td>0.5</td>
<td>0.25</td>
</tr>
<tr>
<td>Objective PowNews</td>
<td>0.5</td>
<td>-0.75</td>
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</tbody>
</table>
Although joint-significance of direct effects may very well indicate significance of an indirect effect (Taylor, MacKinnon, & Tein, 2008), resampling techniques have been recommended to test the significance of indirect effects (Hayes, 2009; Williams & MacKinnon, 2008). The distribution of two or more products is not normally distributed in most cases and non-parametric bootstrapping methods with bias-corrected confidence intervals can correct for this: they have the greatest power, most-accurate Type-I errors and relatively balanced and robust confidence intervals, even with small samples and binary variable predictors (Williams & MacKinnon, 2008). Constructing confidence intervals of two indirect effects on one latent dependent variable with each two mediators per path requires tests that go beyond standard indirect effect tests. Testing the specific indirect effects will, however, benefit our understanding of media effects (Holbert & Stephenson, 2003) and add detail to their causal sequences (Williams & MacKinnon, 2008).

To test the separate indirect effects, user-defined estimates were manually requested in AMOS. Subsequently, the indirect effects’ point estimates and confidence intervals were estimated with 10,000 bias-corrected bootstraps. For comparison purposes, we also estimated Bayesian point estimates and credible intervals. Bayesian estimation also has good properties to deal with non-normal distributions (Arbuckle, 2010; Gill, 2004). One thousand burn-in observations and 204,004 analysis samples were drawn until near-perfect model fit was achieved (convergence statistic = 1.001) and stable parameter estimates for the indirect effects were yielded.

Results
Table 1 shows the parameter estimates and model fit indices that were yielded for the structural regression model. The model explained 40% of the variance in the attitude. Next, the findings are presented of the first and second set of hypotheses.
Table 1. Parameter estimates and fit indices for the partially latent structural regression model predicting attitudes toward the highway widening.

<table>
<thead>
<tr>
<th>Hyp.</th>
<th>Independent variable</th>
<th>Dependent variable</th>
<th>B (SE)</th>
<th>B*</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>Objective NOS vs. Opinionated PowNews</td>
<td>Attitude</td>
<td>0.33 (0.33)</td>
<td>.08</td>
<td>.312</td>
</tr>
<tr>
<td>Direct</td>
<td>Objective PowNews vs. Opinionated PowNews</td>
<td>Attitude</td>
<td>0.76 (0.33)</td>
<td>.15</td>
<td>.021</td>
</tr>
<tr>
<td>Direct</td>
<td>Objective NOS vs. Opinionated NOS</td>
<td>Attitude</td>
<td>0.11 (0.33)</td>
<td>.02</td>
<td>.728</td>
</tr>
<tr>
<td></td>
<td>Political preference</td>
<td>Attitude</td>
<td>0.33 (0.33)</td>
<td>.08</td>
<td>.312</td>
</tr>
<tr>
<td></td>
<td>1a Objective NOS vs. Opinionated PowNews</td>
<td>Presumed influence</td>
<td>0.99 (0.33)</td>
<td>.27</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>1a Objective PowNews vs. Opinionated PowNews</td>
<td>Presumed influence</td>
<td>0.72 (0.33)</td>
<td>.17</td>
<td>.028</td>
</tr>
<tr>
<td></td>
<td>1a Objective NOS vs. Opinionated NOS</td>
<td>Presumed influence</td>
<td>0.69 (0.33)</td>
<td>.16</td>
<td>.036</td>
</tr>
<tr>
<td></td>
<td>1b Presumed influence</td>
<td>Perceived opinion climate</td>
<td>2.54 (0.51)</td>
<td>.31</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>1c Perceived opinion climate</td>
<td>Attitude</td>
<td>0.06 (0.01)</td>
<td>.41</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Presumed influence</td>
<td>Attitude</td>
<td>0.17 (0.07)</td>
<td>.14</td>
<td>.011</td>
</tr>
<tr>
<td>2a-I</td>
<td>Objective NOS vs. Opinionated PowNews</td>
<td>Perceived bias</td>
<td>2.96 (0.42)</td>
<td>.55</td>
<td>.000</td>
</tr>
<tr>
<td>2a-I</td>
<td>Objective PowNews vs. Opinionated PowNews</td>
<td>Perceived bias</td>
<td>2.56 (0.43)</td>
<td>.42</td>
<td>.000</td>
</tr>
<tr>
<td>2a-I</td>
<td>Objective NOS vs. Opinionated NOS</td>
<td>Perceived bias</td>
<td>2.65 (0.42)</td>
<td>.42</td>
<td>.000</td>
</tr>
<tr>
<td>2a-II</td>
<td>Political preference</td>
<td>Perceived bias</td>
<td>-0.16 (0.11)</td>
<td>-0.09</td>
<td>.131</td>
</tr>
<tr>
<td>2a-III</td>
<td>(obj. NOS vs. opi. PowNews) * Pol. preference</td>
<td>Perceived bias</td>
<td>-0.81 (0.31)</td>
<td>-0.21</td>
<td>.010</td>
</tr>
<tr>
<td>2a-III</td>
<td>(obj. PowNews vs. opi. PowNews) * Pol. Preference</td>
<td>Perceived bias</td>
<td>-0.64 (0.30)</td>
<td>-0.15</td>
<td>.036</td>
</tr>
<tr>
<td>2b</td>
<td>Perceived bias</td>
<td>Anger</td>
<td>0.37 (0.09)</td>
<td>.26</td>
<td>.000</td>
</tr>
<tr>
<td>2c</td>
<td>Anger</td>
<td>Attitude</td>
<td>-0.11 (0.03)</td>
<td>-0.20</td>
<td>.000</td>
</tr>
</tbody>
</table>

1abc obj. NOS vs. opi. PowNews: 1a * 1b * 1c | Attitude | 0.15 (0.06) | .001 |
| 1abc obj. PowNews vs. opi. PowNews: 1a * 1b * 1c | Attitude | 0.11 (0.06) | .026 |
| 1abc obj. NOS vs. opi. NOS 1a * 1b * 1c | Attitude | 0.11 (0.06) | .009 |
| 2abc obj. NOS vs. opi. PowNews: 2a-I * 2 * 2c | Attitude | -0.12 (0.06) | .000 |
| 2abc obj. PowNews vs. opi. PowNews: 2a-I * 2 * 2c | Attitude | -0.11 (0.05) | .000 |
| 2abc obj. NOS vs. opi. NOS 2a-I * 2 * 2c | Attitude | -0.11 (0.05) | .000 |
| 2abc obj. NOS vs. opi. PowNews: 2a-III * 2 * 2c | Attitude | 0.03 (0.02) | .005 |
| 2abc obj. PowNews vs. opi. PowNews: 2a-III * 2 * 2c | Attitude | 0.03 (0.02) | .017 |
| 2abc obj. NOS vs. opi. NOS 2a-III * 2 * 2c | Attitude | 0.01 (0.02) | .452 |
| Total Objective NOS vs. Opinionated PowNews | Attitude | 0.53 (0.34) | .261 |
| Total Objective PowNews vs. Opinionated PowNews | Attitude | 0.89 (0.36) | .017 |
| Total Objective NOS vs. Opinionated NOS | Attitude | 0.23 (0.33) | .689 |

Presumed influence $R^2 = .05$
Perceived opinion climate $R^2 = .10$
Perceived bias $R^2 = .29$
Anger $R^2 = .07$
Attitude $R^2 = .40$

Note. Cells contain unstandardized (B) regression weights with standard errors (SE) in parentheses, standardized estimates (B*) and probabilities (p). The indirect effect and total effect estimates are based on 10,000 bias corrected bootstraps.
Hypothesis 1: Indirect Effect via the Influence of Presumed Influence

H$_{1a}$ was supported in all three the condition contrasts: Opinionated news has been found to cause a stronger presumed influence than objective news. The perception that other people’s opinions were affected by the assigned news item was stronger for opinionated news than for objective news, and this presumed influence was in a congruent direction with the bias in the news item. People who saw the opinionated news item expected others to become more in favor of widening the highway than those who saw the objective item with respectively 0.99 (objective NOS versus opinionated PowNews; $SE = 0.33, p = .003$), 0.72 (objective PowNews versus opinionated PowNews; $SE = 0.33, p = .028$), or 0.69 points (objective NOS versus opinionated NOS; $SE = 0.33, p = .036$).

Subsequently, the stronger people presumed others to be affected by the news item to which they themselves were exposed, the more they expected the opinion climate to be congruent with this presumed influence (H$_{1b}$). With every one-point increase on the perception that others were affected by the news item, people adjusted their estimated percentage of people in favor of the topic with, on average, 2.54 percentage points ($SE = 0.51, p < .001$). Finally, people tended to adjust their attitude to the perception they held of the Dutch opinion climate (H$_{1c}$). With every one percent increase in the perceived percentage of the population in favor of the highway widening, people’s attitude toward this topic became more favorable with 0.06 points ($SE = 0.01, p < .001$). Opinion climate perceptions thus positively affected the attitude.

The analyses showed that the three hypothesized effects with regard to Hypothesis 1 were in the expected direction and significant. The question remains whether opinionated news significantly affected people’s attitudes via perceptions of a presumed influence and perceptions of the opinion climate. For all three the condition contrasts, the indirect effect of
exposure to opinionated news via presumed influence and opinion climate perceptions turned out to be positive and the bounds of its 95% bias-corrected bootstrap intervals and the Bayesian credible intervals did not negatively exceed zero, implying a significant positive indirect effect.\(^6\) Exposure to opinionated news indirectly positively affected the attitude with respectively 0.15 (\(SE = 0.06, p = .001\)), 0.11 (\(SE = 0.06, p = .026\)), or 0.11 (\(SE = 0.06, p = .009\)) points via this pathway.

**Hypothesis 2: Indirect Effect via the Hostile Media Phenomenon**

We expected people to perceive more bias in opinionated news that was incongruent with their political preference than in objective news or when opinionated news was congruent with one’s preferences. This hypothesis was supported in two of the condition contrasts as a significant interaction effect between exposure to opinionated news and political preference was found when comparing the objective NOS condition with the opinionated PowNews condition (\(B_{2a-III} = -0.81, SE = 0.31, p = .010\)), and the objective PowNews condition with the opinionated PowNews condition (\(B_{2a-III} = -0.64, SE = 0.30, p = .036\)). The interpretation of this interaction effect was as expected: People with a left-wing political preference perceived more bias in the opinionated PowNews item than in the objective NOS item compared to those with a right-wing political preference (see Figure 4). Employing the Johnson-Neyman technique (Hayes, 2013), the positive effect of news style on bias perception was found to be insignificant for participants with a right-wing political preference above 1.89 (on a -3 to 3 scale). The same pattern was found when the perceived

\(^6\) Using 10,000 bias-corrected bootstraps we found the following results: objective NOS versus opinionated PowNews \(B_{1abc} = 0.15, SE = 0.06, 95\% CI [0.05, 0.32]\); objective PowNews versus opinionated PowNews \(B_{1abc} = 0.11, SE = 0.06, 95\% CI [0.01, 0.27]\); objective NOS versus opinionated NOS \(B_{1abc} = 0.11, SE = 0.06, 95\% CI [0.02, 0.25]\). Using Bayesian estimation with 1000 burn-in observations and 204,004 analysis samples we found the following results: objective NOS versus opinionated PowNews \(SD = 0.15, SD = 0.06, 95\% CI [0.04, 0.29]\); objective PowNews versus opinionated PowNews \(SD = 0.11, SD = 0.06, 95\% CI [0.01, 0.23]\); objective NOS versus opinionated NOS \(SD = 0.11, SD = 0.06, 95\% CI [0.00, 0.24]\).
bias in the objective and opinionated PowNews items were compared: The difference in perceived bias was insignificant for right-wing political preferences above 1.86.

Figure 4. Visual representation of the interaction effect on perceived bias between political preference and exposure to opinionated or objective news coverage.

Participants with left-wing and right-wing political preferences did not, however, perceive the difference in bias between the objective NOS item and the opinionated NOS item significantly different (\(^{B_{2a-III}} = -0.19, SE = 0.30, p = .533\)). Hypothesis 2a was thus partially supported. The opinionated NOS item was perceived to be more biased than the objective NOS item (main effect 2a-I), but the difference in perceived bias for this contrast was not significantly smaller for participants with right-wing political preferences. The reason that no interaction effect was found in contrasting exposure to the two NOS stimuli may be that all
participants, including the ones with right-wing political preferences, were too astonished to see opinionated news coverage being broadcasted by NOS.

The next hypothesis regarding the consequence of the relative hostile media phenomenon was fully supported. Participants who perceived more bias in the news item to which they were exposed, experienced more anger during this exposure ($B_{2b} = 0.37, SE = 0.09, p < .001$). Exposure to news that one perceived as being relatively biased, thus yielded anger ($H_{2b}$). Subsequently, as people experienced more anger, they were less likely to support the widening of the highway ($H_{2c}$). Anger had a negative effect on the attitude factor. Every one point increase in the emotional state of anger caused a decrease of 0.11 points ($SE = 0.03, p < .001$) in the attitude toward the highway widening.

In sum, by evoking perceptions of bias and yielding anger, opinionated news indirectly decreased support for the idea it put forward. As the first subhypothesis ($H_{3a}$) was largely supported – perceptions of bias were conditional on political preferences – we expected the negative indirect effect of opinionated news on the attitude to be stronger for people with political preferences incongruent with opinionated news. To investigate this expectation, both the indirect effect of exposure to an opinionated news item and the indirect effect of the interaction between exposure to opinionated news and political preference were tested. The negative indirect effects of opinionated news on the attitude had 95% confidence intervals that not positively exceeded zero. By contrast, the indirect effects of the interaction

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7 Using 10,000 bias-corrected bootstraps we found the following results for the indirect effect of exposure to opinionated news on attitude via perceptions of bias and anger: objective NOS versus opinionated PowNews $B = -0.12, SE = 0.06, 95\% CI [-0.27, -0.04]$; objective PowNews versus opinionated PowNews $B = -0.11, SE = 0.05, 95\% CI [-0.23, -0.04]$; objective NOS versus opinionated NOS $B = -0.11, SE = 0.06, 95\% CI [-0.25, -0.04]$.

Using Bayesian estimation with 1000 burn-in observations and 204,004 analysis samples we found the following results: objective NOS versus opinionated PowNews $B = -0.12, SD = 0.05, 95\% CI [-0.23, -0.04]$; objective PowNews versus opinionated PowNews $B = -0.11, SD = 0.04, 95\% CI [-0.20, 0.04]$; objective NOS versus opinionated NOS $B = -0.11, SD = 0.05, 95\% CI [-0.21, -0.04]$. 
between exposure to opinionated news and political preference were positive and had 95% confidence intervals with bounds above zero in two of the three condition contrasts.  

The negative indirect effect of opinionated news in combination with the positive indirect effect of the interaction term can substantively be interpreted as follows: Opinionated news had a conditional negative indirect effect on the attitude, which was more negative for people with an incongruent political preference (left-wing in this case) than for those with a congruent political preference. Consider, for example, the first condition contrast (objective \textit{NOS} vs. opinionated \textit{PowNews}). The general indirect effect of exposure to opinionated news via perceptions of bias and anger was -0.12, and the indirect effect of the interaction effect between exposure to opinionated news and political preference was 0.03. Exposure to opinionated news for people with a neutral political preference (= 0), thus, decreased the attitude factor with on average 0.12 points. For those with a moderate right-wing political preference (i.e., a political preference of 2), exposure to the opinionated item decreased the attitude with 0.06 points (-0.12 + 0.03 × 2). By contrast, for those with a left-wing political preference (e.g., -2) it decreased the attitude with on average 0.18 points (-0.12 + 0.03 × -2).

**Discussion**

This study has demonstrated that opinionated news can affect citizens’ political attitudes via two indirect processes. First, opinionated news may have a positive indirect effect on attitudes via a presumed media influence on others and related perceptions of the opinion climate. Second, opinionated news can indirectly affect attitudes via hostile media perceptions and anger responses. This indirect effect is particularly strong among those who

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8 Using 10,000 bias-corrected bootstraps we found the following results: objective \textit{NOS} versus opinionated \textit{PowNews} $B_{2abc} = 0.03$, $SE = 0.02$, 95% CI [0.01, 0.10]; objective \textit{PowNews} versus opinionated \textit{PowNews} $B_{2abc} = 0.02$, $SE = 0.02$, 95% CI [0.00, 0.08]; objective \textit{NOS} versus opinionated \textit{NOS} $B_{2abc} = 0.02$, $SE = 0.02$, 95% CI [-0.02, 0.05]. Using Bayesian estimation with 1000 burn-in observations and 204,004 analysis samples we found the following results: objective \textit{NOS} versus opinionated \textit{PowNews} $B_{2abc} = 0.03$, $SD = 0.02$, 95% CI [0.01, 0.08]; objective \textit{PowNews} versus opinionated \textit{PowNews} $B_{2abc} = 0.03$, $SD = 0.02$, 95% CI [0.00, 0.07]; objective \textit{NOS} versus opinionated \textit{NOS} $B_{2abc} = 0.01$, $SD = 0.01$, 95% CI [-0.04, 0.04].
have political preferences incongruent with the opinionated news item. These findings altogether give insight into two mechanisms, one cognitive and one more affective, that lie behind the effects of opinionated news, and demonstrate that hostile media perceptions and presumed media influence perceptions are consequential and may subsequently affect variables of political and social relevance.

The directions of the two indirect effects established in this study stand in contrast to each other. The indirect effect via presumed influence is positive, whereas the indirect effect via perceptions of bias is negative. This explains why we did not find a significant total effect of opinionated news on attitudes in two of the three condition contrasts. However, these indirect effects might play out stronger or weaker as a function of the salience of a topic that is featured in opinionated news (see, e.g., Lecheler, de Vreese, & Slothuus, 2009).

Arguably, opinionated news seems more likely to positively affect attitudes via the presumed influence process for topics with which viewers are unfamiliar. People are more likely to follow perceptions of the perceived majority, if they do not have a stable opinion themselves (Mutz, 1998). Furthermore, less hostile media reactions will be evoked by opinionated news about unfamiliar or irrelevant topics, because deviations from journalistic standards will probably be less obvious and considered to be less obtrusive. By contrast, effects of opinionated news are more likely to run via hostile media perceptions and evoked emotions for topics that citizens consider to be of great importance (Giner-Sorolla & Chaiken, 1994; Hansen & Kim, 2011). Here, opinionated news can clash with preferences of highly involved individuals, anger will more easily be elicited, and people are less likely to base their opinions on opinion climate perceptions as most people already have a firm opinion on these topics.

Altogether these assumptions are in line with motivated reasoning processes that have been found in previous studies on opinionated news (Arceneaux et al., 2013; Meirick,
One-directional positive effects of opinionated news seem most likely for unimportant topics. However, when people are involved and motivated to invest cognitive effort, attitudes of likeminded viewers are reinforced, whereas counterarguing and boomerang effects are found for people with incongruent political preferences. More empirical research looking at coverage of topics varying in importance is needed to verify the assumption that the indirect effects of opinionated news depend on the perceived importance of a topic.

Under normal circumstances, however, it seems most likely to find a positive total effect of opinionated news (e.g., DellaVigna & Kaplan, 2007; Smith & Searles, 2012; Stroud, 2010). After all, people tend to select news coverage that is congruent with their political views (Coe et al., 2008; Iyengar & Hahn, 2009; Morris, 2005). This makes it less likely to be exposed to news that raises hostile media perceptions and evokes anger. However, hostile media effects cannot be excluded as an underlying mechanism for effects of opinionated news, because people do not limit their news diets to congruent information, but also watch and read attitude incongruent news (Garrett, 2009; Holbert, Hmielowski, & Weeks, 2012). In the Netherlands, for example, more people with a right-wing political preference watch PowNews regularly, but still a substantial proportion of its audience are moderates and left-wing voters.9 With the rising importance of social media, citizens may, furthermore, easily encounter attitude-incongruent news that is shared by family, friends or colleagues. Accordingly, we infer that a general conclusion about the consequences of opinionated news for people’s political attitudes has to be a conditional one. The direction of influence varies with one’s political preference and may in sum be positive, negative or zero.

This conclusion stems from a study based on an experimental design that offered the opportunity to control for source cues in the analyses. We note, however, that the current

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9 We thank Prof. Dr. Paul Dekker (Sociaal en Cultureel Planbureau) for providing the recent Citizens’ Outlooks Barometer I and II of 2013, which provides data confirming that a substantial proportion of PowNews viewers are moderates and left-wing voters.
study would benefit from a more representative sample of participants and a replication with other news topics so that stronger conclusions could be drawn regarding the generalizability of the findings. Ideally, future studies should also address issues of time and measurement so that the dependent and mediator variables are not all tapped in one posttest questionnaire.

We can rule out alternative causal directions of the relationship between exposure to opinionated news and presumed influence on others due to our experimental design, which has been problematic in previous studies (Shen & Huggins, 2013). However, there may be alternative causal explanations for some of the other relationships that we have found. For example, the causal relationship between opinion climate perceptions and people’s own attitudes could be explained by a “false-consensus effect” or “looking glass perception” (Fields & Schuman, 1976): the tendency of people to believe that others share their opinion. Moreover, the relationship between hostile media perceptions and negative emotions may also be reverse, though another study already found that anger itself seems not a cause of perceiving bias (Kim, 2011), which is in line with our model and findings.

In addition, one may assume a reciprocity between the two investigated underlying processes (Gibbon & Durkin, 1995; Gunther & Schmitt, 2004): People who perceive news as biased might presume that others are affected by this news, which could cause feelings of anger if the news was incongruent with one’s political preference. However, Richardson et al.’s (2008) findings and our data did not confirm such a relationship between presumed influence perceptions and hostile media perceptions.

With its deviations from traditional journalistic norms, use of dramaturgical storytelling techniques, and construction of a reality congruent with the preferences of its target audience, opinionated news has more in common with political entertainment than with

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10 Matthes (2013), for example, predicts and shows that the relationship between hostile media perceptions and negative emotions may also be reverse. However, there are important conceptual differences between Matthes’ study and ours. Matthes’ study investigated issue-specific emotional reactions rather than media indignation, his study and focused on emotional involvement rather than emotional states.
traditional news. As such, it has become an increasingly important source of political information. This study helps to understand how this popular new news genre affects public opinion formation and has demonstrated two indirect ways via which opinionated news may cause effects on political attitudes. Thereby, it provides evidence against the claim (Bennett & Iyengar, 2008) that a widened range of media choice would cause a return to a “minimal effects” era (Klapper, 1960). After all, even when those uninterested in politics and without stable political preferences abandon the traditional news media, they may still be attracted to entertaining types of political media that cater other needs (Holbert, Garrett, & Gleason, 2010). Opinionated news, for instance, does not primarily intend to provide high-quality information but rather functions as an instrument around which a community of a likeminded audience is build; that, however, does not alter the fact that such news can affect political attitudes. The trend that citizens retrieve their news via more entertaining media thus does not decrease but rather multiplies the number of ways via which democratically relevant attitudes of citizens can be influenced.

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doi:10.1177/1065912909338463


Appendix A: Correlation matrix descriptive information of Chapter 2

Table A1. Descriptive information and observed correlations between variables used in the structural equation model (n = 231)

<table>
<thead>
<tr>
<th>Variable</th>
<th>X_1</th>
<th>X_2</th>
<th>X_3</th>
<th>X_4</th>
<th>X_5</th>
<th>X_6</th>
<th>X_7</th>
<th>X_8</th>
<th>X_9</th>
<th>X_10</th>
<th>X_11</th>
<th>X_12</th>
<th>X_13</th>
<th>X_14</th>
<th>X_15</th>
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<td>X_1: Obj. NOS vs. Opi. PowNews</td>
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<td></td>
</tr>
<tr>
<td>X_2: Obj. PowNews vs. Opi. PowNews</td>
<td>-0.577</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>X_3: Obj. NOS vs. Opi. NOS</td>
<td>-0.568</td>
<td>0.328</td>
<td>1</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>X_4: Political preference</td>
<td>-0.006</td>
<td>-0.099</td>
<td>0.021</td>
<td>1</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>X_5: Obj. NOS vs. Opi. PowNews * Political preference</td>
<td>-0.012</td>
<td>-0.096</td>
<td>-0.011</td>
<td>0.004</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>X_6: Obj. PowNews vs. Opi. PowNews * Pol. preference</td>
<td>-0.092</td>
<td>0.099</td>
<td>0.063</td>
<td>-0.060</td>
<td>-0.618</td>
<td>1</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X_7: Obj. NOS vs. Opi. NOS * Political preference</td>
<td>-0.011</td>
<td>0.065</td>
<td>0.013</td>
<td>0.015</td>
<td>-0.590</td>
<td>0.365</td>
<td>1</td>
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<tr>
<td>X_8: Presumed influence</td>
<td>0.080</td>
<td>0.070</td>
<td>0.066</td>
<td>0.003</td>
<td>-0.108</td>
<td>-0.042</td>
<td>0.035</td>
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<tr>
<td>X_9: Perceived opinion climate</td>
<td>-0.083</td>
<td>0.106</td>
<td>0.113</td>
<td>0.103</td>
<td>-0.033</td>
<td>-0.072</td>
<td>-0.092</td>
<td>0.313</td>
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<tr>
<td>X_10: Perceived bias</td>
<td>0.091</td>
<td>0.246</td>
<td>0.236</td>
<td>-0.113</td>
<td>-0.146</td>
<td>-0.013</td>
<td>0.053</td>
<td>0.179</td>
<td>0.097</td>
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<tr>
<td>X_11: Anger</td>
<td>0.097</td>
<td>-0.023</td>
<td>0.063</td>
<td>-0.005</td>
<td>-0.066</td>
<td>0.042</td>
<td>0.106</td>
<td>-0.013</td>
<td>-0.144</td>
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<tr>
<td>X_12: Widening as soon as possible</td>
<td>-0.070</td>
<td>0.136</td>
<td>0.090</td>
<td>0.357</td>
<td>0.009</td>
<td>-0.112</td>
<td>-0.084</td>
<td>0.275</td>
<td>0.497</td>
<td>-0.008</td>
<td>-0.248</td>
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<tr>
<td>X_13: Widening is essential</td>
<td>-0.084</td>
<td>0.099</td>
<td>0.041</td>
<td>0.269</td>
<td>0.010</td>
<td>-0.061</td>
<td>-0.027</td>
<td>0.213</td>
<td>0.471</td>
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<td>-0.258</td>
<td>0.833</td>
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<td>X_14: First examine alternatives</td>
<td>-0.075</td>
<td>0.173</td>
<td>0.076</td>
<td>0.301</td>
<td>0.025</td>
<td>-0.047</td>
<td>-0.029</td>
<td>0.186</td>
<td>0.358</td>
<td>0.065</td>
<td>-0.217</td>
<td>0.697</td>
<td>0.589</td>
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<tr>
<td>X_15: Protecting nature important</td>
<td>-0.022</td>
<td>0.093</td>
<td>0.008</td>
<td>0.336</td>
<td>0.028</td>
<td>-0.115</td>
<td>0.028</td>
<td>0.225</td>
<td>0.405</td>
<td>-0.008</td>
<td>-0.150</td>
<td>0.654</td>
<td>0.623</td>
<td>0.698</td>
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</table>

Mean (M)                                                                 | 0.002 | -0.001| -0.008| -0.017| -0.004| -0.061| 0.013 | 0.736 | 61.805| 4.671 | 4.983 | 4.370 | 4.890 | 3.680 | 3.952 |

Standard deviation (SD)                                                  | 0.501 | 0.435 | 0.429 | 1.414 | 0.707 | 0.630 | 0.618 | 1.814 | 14.732| 2.679 | 3.838 | 2.305 | 2.063 | 2.398 | 2.173 |