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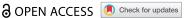
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# Taking Political Alternative Media into Account: Investigating the Linkage Between Media Repertoires and (Mis)perceptions

Rens Vliegentharta, Jesper Strombackb, Hajo Boomgaardenc, Elena Broda<sup>b</sup>, Alyt Damstra<sup>d</sup>, Elina Lindgren <sup>6</sup>, Yariv Tsfati<sup>e</sup>, and Annelien Van Remoortere<sup>a</sup>

<sup>a</sup>Strategic Communication Group, Wageningen University & Research, Wageningen, The Netherlands; <sup>b</sup>Department of Journalism, Media and Communication, University of Gothenburg, Gothenburg, Sweden; Department of Communication, University of Vienna, Kolingasse, Austria; dAmsterdam School of Communication Research, University of Amsterdam, Amsterdam, The Netherlands; eDepartment of Communication, University of Haifa, Haifa, Israel

#### **ABSTRACT**

In most studies on news repertoires and the linkage between media use and (mis)perceptions of social and political matters, the use of political alternative media has not been included. In this paper, we therefore investigate how people combine both traditional and political alternative media into different media repertoires, and how these media repertoires are related to misperceptions. We rely on a two-wave panel survey, conducted in 2020 and 2021, with a probability-recruited sample of the Swedish population. Measures on the use of a wide range of media, including political alternative ones, are used to conduct a Latent Profile Analysis. This analysis distinguishes five media repertoires in the data. The results show that these repertoires coincide with different levels of misperceptions, with those dominated by TV use showing higher levels of misperceptions and those with higher newspaper and alternative media use showing lower levels of misperceptions. Results also show that media repertoires do not affect overtime changes in misperceptions.

**CONTACT** Rens Vliegenthart rens.vliegenthart@wur.nl; annelien.vanremoortere@wur.nl **Strategic** Communication Group, Wageningen University & Research, P.O. Box 8130, Wageningen 6700 EW, The Netherland

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### Introduction

One key aspect of the last decades transformation of media environments is the increasing supply of different types of information sources. Next to traditional media sources such as newspapers, television and online news sites, recent times have witnessed the rise of political alternative media (Benkler et al., 2018; Heft et al., 2020; Holt et al., 2019; Newman & Kalogeropoulos, 2018). Although the degree of alternativeness differs (Holt et al., 2019), a key difference between these types of media is that political alternative media are governed by political rather than journalistic values (Benkler et al., 2018; Holt et al., 2019; Strömbäck et al., 2022a). Another characteristic is that they are often highly critical of mainstream media (Holt, 2018; Nygaard, 2021). In particular, this holds for right-wing alternative media, where mainstream news media are often accused of being leftist, politically correct, and deceitful (Cushion et al., 2021; Figenschou & Ihlebaek, 2019; Holt, 2018). People choose to rely on alternative media for a variety of reasons. In some instances, people are driven by strong feelings of discontent with political elites, social establishment and traditional media. Other users see alternative media as complementary to traditional media and consider it as a useful way to get a more complete picture of an issue (Schwarzenegger, 2021). A recent study in Sweden demonstrates that alternative media users are younger, lower educated and more likely to be male than other news consumers, hold less favorable views toward politics and media, but are also highly interested in news and often consume a lot of traditional media as well (Andersen et al., 2022).

Alongside the increased supply of alternative media, the last decade has allegedly also witnessed an increasing prevalence of misinformation and misperceptions in society (Benkler et al., 2018; Kavanagh & Rich, 2018). Conceptually, misinformation refers to false and misleading information, whereas misperceptions refer to perceptions that do not align with the best available information (Flynn et al., 2017). Although it is hard to quantify (changes in) the prevalence of misinformation, research suggests that exposure to misinformation leads to misperceptions and that both misinformation and misperceptions are widespread across societal domains (Flynn, 2016; Flynn et al., 2017; Kuklinski et al., 2000; Nyhan & Reifler, 2015). Several studies have also shown that false, misleading, and biased information is more prevalent in political alternative media and that use of such media contributes to misperceptions (Benkler et al., 2018; Garrett et al., 2016, 2019; Hmielowski et al., 2014; Hutchens et al., 2021; Kull et al., 2003).

Thus far, most studies in this area have however focused on the United States and misperceptions closely related to partisan politics, such as whether former President Barack Obama was born in the United States (Garrett et al., 2016). Hence, it is not clear whether findings apply beyond the U.S. context and to issues that are less closely linked to partisan politics. The lack of research on the latter is problematic, as the degree of party politicization of an issue may impact the extent to which partisan motivated reasoning (Kunda, 1990) or cheerleading (Bullock & Lenz, 2019) is triggered when people are questioned about their factual beliefs (Peterson & Iyengar, 2021). Another problem is that there are few studies on how people combine their use of political alternative and mainstream media (e.g., Edgerly, 2015). In contemporary, high-choice and hybrid media environments (Chadwick, 2013; Van Aelst et al., 2017), people increasingly form their own media repertoires (Bos et al., 2016; Castro et al., 2021; Leonhard et al., 2020; Strömbäck et al., 2018), but thus far, our knowledge about the effects of people's media repertoires on the extent to which they hold misperceptions is virtually non-existent.

Against this background, the purpose of this study is to investigate (a) the use of traditional news media and political alternative media to both the left and the right, (b) what media repertoires can be identified, and (c) the effects of different media repertoires on misperceptions. In terms of misperceptions, we will focus on five issues that vary in the degree of politicization and salience in the political debate: climate change, immigration, medicine and vaccinations, genetically modified organisms, and crime. Empirically, we will focus on Sweden, a country that has traditionally had quite widespread and overlapping media use, and where political alternative media during the last decade have become more important (Heft et al., 2020; Holt, 2018; Ihlebaek & Nygaard, 2021; Newman & Kalogeropoulos, 2018). In our analyses, we rely on a specific differentiation between levels of misperceptions, answering the question whether people with different media repertoires differ in their levels of misperceptions. Additionally, we look at changes in misperceptions over time and investigate whether people with different media repertoires also have different trajectories of increasing or decreasing levels of misperceptions.

# Distinguishing different types of media

One key aspect of the rise of digital media and the transformation from low-choice to high-choice media environments is that the concept of media has become blurred, both theoretically and from an audience perspective (Bauer et al., 2022; Klawier et al., 2021; Steppat et al., 2023). Traditionally, the terms media and news media were often used interchangeably, but such practices are not tenable in contemporary media environments (Chadwick, 2013; Strömbäck et al., 2022b) with their mix of legacy news media, political alternative media, online-only media, niche media, social media, fake news media, and a host of businesses, foundations, and non-governmental organizations running their own online media.

From a political communication perspective, of particular importance is the distinction between mainstream news media and what is sometimes called non-mainstream, political alternative, or partisan media. While the distinction is not clear-cut and the degree of alternativeness differs among alternative media (Holt et al., 2019; Müller & Freudenthaler, 2022), a distinguishing feature of mainstream news media is that they function not just as single organizations but as an institution (Cook, 2005). There are thus great similarities across mainstream news media in terms of how news work is organized, the operating routines for seeking out, checking, and publishing news, the logic by which they operate, and the applied criteria of newsworthiness (Cook, 2005; Esser & Strömbäck, 2014; O'Neill & Harcup, 2009). Research also shows that journalists across the world hold highly similar role conceptions, even though the contexts in which journalism is produced differ (Hanitzsch et al., 2019). With respect to mainstream news media, key journalistic values are hence seeking the truth, verifying before publishing, reporting things as they are, impartiality, detachment, and acting as a watchdog against political power (Hanitzsch et al., 2019; Kovach & Rosenstiel, 2021).

Political alternative media, in contrast, seek to function as a corrective toward what they perceive as more or less corrupt mainstream news media (Figenschou & Ihlebaek, 2019; Holt, 2018; Holt et al., 2019; Nygaard, 2019). These are perceived as being in the pockets of and acting mainly in the interests of certain elites rather than of ordinary people. Media skepticism—defined as a sense of "alienation and mistrust toward mainstream media" (Tsfati, 2003, p. 67)—is thus an important feature of political alternative media and their users (Fawzi & Krämer, 2021; Schulz et al., 2020; Schulze, 2020), and they often accuse mainstream news media of concealing and distorting information that is not deemed "politically correct" by dominant elites (Figenschou & Ihlebaek, 2019; Holt et al., 2019). In Europe and the United States, this holds in particular for right-wing political alternative media.

Like fake news sites—which provide false and misleading information, dressed up as journalism (Egelhofer & Lecheler, 2019; Tandoc et al., 2018)—the motives behind political alternative media can be political or financial, or a blend thereof (Allcott & Gentzkow, 2017). Either way, a distinguishing feature of their alternativeness is that they seek to provide news content based on their political orientation (Holt et al., 2019; Levendusky, 2013; Strömbäck et al., 2022a). Their unique selling point is to deliver news that conforms with certain political or partisan values, thereby confirming corresponding political beliefs, attitudes, and identities (Benkler et al., 2018).

There are thus several reasons why political alternative media are more likely to provide false and misleading information (Benkler et al., 2018;



Garrett et al., 2016; Hmielowski et al., 2014; Hutchens et al., 2021; Kull et al., 2003; Waisbord, 2018), although mainstream media are not innocent in this respect (Tsfati et al., 2020). First, political alternative media tend to compete and seek validation by providing partisan-consistent and identityconforming news rather than by providing verified, unbiased, and impartial news. Second, these media are more prone toward blending facts and opinions. Third, they often neither have the same motivation nor the resources and routines for verifying the news. Fourth, they are more likely to believe in false and misleading information that casts a bad light on opponents (Benkler et al., 2018; Strömbäck et al., 2022a; Tsfati et al., 2020; Vargo et al., 2018) and be skeptical of or even hostile to "facts and truth determined by knowledge-producing elites such as scientists and experts" (Waisbord, 2018, p. 19).

## The use of political alternative media

Even though the distinction between mainstream news media and political alternative media is not clear-cut, evidence shows that political alternative media have become more popular. This holds true not only in the United States, but also in other countries (Newman et al., 2018). In the United States, these include websites such as Breitbart and Daily Caller, in Germany Junge Freiheit and Compact Online, in Spain Libertad Digital and Periodista Digital, in the United Kingdom The Canary and Westminster, and in Sweden Fria Tider and Nyheter Idag (Newman & Kalogeropoulos, 2018; Newman et al., 2018). In many countries, right-wing political alternative media are more prominent than left-wing political alternative media, and many of them began as anti-immigration alternative media (Heft et al., 2020; Holt, 2018; Ihlebaek & Nygaard, 2021).

While the audience share for political alternative media in most cases might be quite small compared to mainstream news media (Newman et al., 2018), they may still be important for parts of the population, and news from them often circulate through social media and thereby reach larger audiences (Sandberg & Ihlebaek, 2019). The effects of political alternative media thus deserve scholarly attention. In some countries, political alternative media have furthermore proven to be quite successful. Apart from U.S. examples such as Breitbart, many countries nowadays have political alternative media that are rather widely used (Newman et al., 2018). One of these countries is Sweden, where some online rightwing political alternative media have become relatively prominent and successful (Heft et al., 2020; Holt, 2018; Ihlebaek & Nygaard, 2021; Newman et al., 2018, 2020). In general, they can be classified as antiimmigration, right-wing populist anti-establishment and anti-mainstream media (Holt, 2018; Ihlebaek & Nygaard, 2021; Theorin & Strömbäck,



2020). According to the Reuters Digital News Report, two of these-Nyheter Idag and Fria Tider—are used at least weekly by about 10% of the online population (Newman et al., 2020).

However, little is known about how people combine the use of mainstream news media and political alternative media—in particular beyond the U.S. case. While many have raised fears that the increasing prevalence of political alternative media, algorithms and political selective exposure will lead people to enclose themselves in echo chambers (Jamieson & Cappella, 2008; Pariser, 2011), research also shows that there is great overlap with the use of major mainstream news media (Bos et al., 2016; Castro et al., 2021; Fletcher & Nielsen, 2017). Thus, while the term alternative suggests that people use political alternative media instead of mainstream news media, research showing that exposure to these different media overlaps suggests that people use political alternative media as a complement to, rather than a substitute for, mainstream news media. This is what Edgerly (2015) found in her study on news repertoires in the US, which included political alternative media. However, she found one group— "conservative only" —that almost exclusively used conservative media. As there are only few studies following a media repertoire approach and that include political alternative media, it is however unclear how far the results can be replicated in other contexts. This leads to our first research questions, which will be addressed in a Swedish context:

RQ1: Accounting for the use of both mainstream news media and political alternative media, what media repertories can be identified in the public?

RQ2: Is there a media repertoire that is dominated by the usage of political alternative media?

# Effects of media use on (mis)perceptions

As suggested by many studies, misinformation and misperceptions are significant and likely growing problems (Benkler et al., 2018; Damstra et al., 2023; Flynn, 2016; Flynn et al., 2017; Kavanagh & Rich, 2018; O'Connor & Weatherall, 2019), with several studies showing that misperceptions are widespread across societal domains (Flynn, 2016; Flynn et al., 2017; Kull et al., 2003; Nyhan & Reifler, 2015). In terms of explaining misperceptions, the most important factors seem to be exposure to misinformation in combination with directional motivated reasoning and confirmation bias (Flynn et al., 2017; Kunda, 1990; Lodge & Taber, 2013). More specifically, research shows that people have an innate tendency to prefer information which confirms their already held beliefs and attitudes, and this influences both their exposure to and avoidance of different information sources and their processing of information (Flynn et al., 2017; Garrett et al., 2013;



Knobloch-Westerwick, 2014; Kunda, 1990; Nickerson, 1998). Another key factor is laziness, in that people are cognitive misers that often rely on partisan cues and heuristics instead of engaging in more analytical and critical thinking (Pennycook & Rand, 2019).

However, the role of media and media use should not be underestimated. For most people, most of the time, different types of media constitute the most important source of information about politics and society (Mutz, 1998; Shehata & Strömbäck, 2014), and the connection between media use and the learning and internalization of political information and knowledge has been repeatedly substantiated in communication research (De Vreese & Boomgaarden, 2006; Price & Zaller, 1993). Research also shows that media use has an impact on the extent to which people are informed versus uninformed (Aalberg & Curran, 2012; Eveland, 2000; Fraile & Iyengar, 2014; Shehata & Strömbäck, 2021; Shehata et al., 2015). Hence, media use should have an impact also on the extent to which people are misinformed (Damstra et al., 2023; Kuklinski et al., 2000).

Jamieson and Cappella (2008) have documented differences in the facts reported by different partisan media in the US and have termed this phenomenon "the balkanization of political knowledge." They find that listeners to conservative talk radio "and, by implication, the audiences to other partisan sites, whether liberal or conservative, can come to hold specific knowledge largely unshared by those unexposed to these or similar outlets" (p. 191). Additional research shows that "use of ideological media is consistently associated with holding misperceptions" (Garrett et al., 2016, p. 341). Feldman et al. (2012), for example, found not only that Fox took a more dismissive tone toward climate change than CNN and MSNBC, but also that watching Fox was associated with less acceptance of climate change. Along the same lines, Hmielowski et al. (2014) found that conservative media use decreases certainty that global warming is happening, while Garrett et al. (2016) found that the use of liberal and conservative websites promotes ideologically consistent misperceptions (see also Garrett et al., 2019).

Despite the above findings, research on the effects of media use on misperceptions is limited, both in terms of the number of studies, the fact that most research has been done in the United States, and that most studies have focused on a limited number of issues such as global warming and perceptions of presidential candidates. Flynn et al. (2017, p. 140) thus conclude their review of research on misperceptions that "little is known more generally about ... what effects misleading media coverage has on public opinion."

The limitations in knowledge of the effects of media use on misperceptions holds true both when it comes to mainstream news media and political alternative media use. In fact, using both types of media may lead to misperceptions, although mainstream media are supposed to provide only verified information. To begin with, research suggests that many learn about fake news from mainstream media (Tsfati et al., 2020). While for mainstream media, the purpose of covering false and misleading information may be to fact-check or debunk it (Graves, 2016). Yet, when doing so, they repeat the false and misleading information and thereby help to disseminate it (Tsfati et al., 2020). Second, as the main arena for debates about politics, mainstream news media are bound to disseminate false and misleading information from different sources. One reason for this is that mainstream news media do not have the time or resources to check the veracity of information from external sources, while another is their tendency to satisfice with reporting both sides of a political controversy (Pingree et al., 2014). Third, when politicians say things that are false, mainstream media might consider the very fact that a politician uttered a falsity as a news that should be reported (Bennett & Livingston, 2018).

However, how often mainstream news media feature false and misleading information is not clear. Political alternative media, on the other hand, can be expected to select and frame issues based on how they align with their political motivations rather than based on factual correctness. Hence, the use of both types of media may impact the prevalence of misperceptions among their audiences. Most important, however, is not the use of single media or media types, but the effects of different media repertoires on misperceptions. First, accounting for the effects of different media repertoires gets closer to how people actually use various types of media. Second, if the effects of using one type of media differ from the effects of using another, then the total media effect is better captured by investigating the effects of media repertoires than of using specific media or media types (Strömbäck et al., 2018).

As we do not yet know what media repertoires exist among Swedish news audiences, it is difficult to be more precise in terms of the effects of different media repertoires on the extent to which citizens hold misperceptions. However, following the reasoning above, we expect that the degree to which different media repertoires includes mainstream news media versus political alternative media use matters. Therefore, we address the following research question:

RQ3: What is the relationship between different media repertoires and levels of misperceptions?

While there might be a direct relationship between media use and levels of misperceptions, a related question is whether the same is the case for changes in misperceptions. Knowledge acquisition is a dynamic process and levels of misperceptions might differ over time as the information



a person encounters incrementally influences their knowledge and understanding of the world around them. To address this, we formulate the following research question:

RQ4: What is the effect of different media repertoires on changes in levels of misperceptions?

# Case selection, data and methodology

To address our research questions, we will focus on the case of Sweden. This case was selected for several reasons. First, within the family of established Western democracies, Sweden constitutes a most different case compared to the United States where most research in this area has been done. For example, Sweden represents a prototypical case of the democratic-corporatist model of media and politics, in contrast to the United States, which represents a prototypical case of the liberal model (Hallin & Mancini, 2004). Second and relatedly, Sweden represents a media welfare state, with extensive and overlapping use of mainstream news media and strong public service broadcasting (Syvertsen et al., 2014). Also important is that all mainstream news media are politically independent and that their news coverage is not systematically biased neither to the left or the right (Johansson & Strömbäck, 2019). Third, in recent years, Sweden has become one of the European countries where online political alternative media have become most successful in terms of audience reach. This holds particularly for right-wing, political alternative media (Heft et al., 2020; Holt, 2018; Newman et al., 2018).

# Panel survey

Data was collected by the Laboratory of Opinion Research (LORE), the Swedish Ethical Review Authority within the University of Gothenburg reviewed and approved the study (ID number 1016-18). The panel survey is web-based, with a probability sample of Swedish residents ages 18-years or older. The first panel wave was in the field between February 24 and March 25, 2020, and the second between February 25 and March 30, 2021. The net sample size was 5,223 residents. Of these, 3,329 completed the questionnaire in Wave 1, resulting in a net participation rate of 63.7%. Out of those, 2,337 also participated in Wave 2, resulting in a total cooperation rate of 45.7%. Not all respondents answered all questions, yielding a sample of around 1,800 for our multivariate analyses that span both waves.

To identify media repertoires, we rely on a range of media use questions asked in the first panel wave. These questions include the use of all mainstream national news media in a typical week, as well as the use of a range of alternative media. These were chosen based on a pilot study and include the 20 most used alternative media at the time. For mainstream media, scores range from 0 (never) to 7 (seven days a week). For alternative media, the scores range from 0 (never) to 8 (seven days a week), including an additional category 1 (less than once a week). A list of the included media can be found in Table 1.

We use the eight national mainstream media and the 19 other media as measured in the first wave as input for a latent profile analysis which helps us to identify different clusters or subgroups in the population (i.e., media repertoires). This type of approach is useful to identify latent classes based on interval variables (see Geers & Vliegenthart, 2021 for a similar approach). We rely on the GSEM module in STATA. Previous research has demonstrated that in Sweden, and in comparable countries such as the Netherlands, typically four types of media repertoires can be identified (Andersen et al., 2022; Bos et al., 2016; Strömbäck et al., 2018).

Our dependent variable is the degree to which people hold misperceptions. The measurement was repeated in Wave 1 and Wave 2. Misperceptions are defined as beliefs that are inconsistent with the best available evidence. We focus on five policy issues that have been subject to

Table 1. Mainstream news media and alternative media outlets included.

| Title                 | Туре                              | Mean | SD   |
|-----------------------|-----------------------------------|------|------|
| Aftonbladet*          | National newspaper                | 2.40 | 2.82 |
| Expressen*            | National newspaper                | 1.58 | 2.46 |
| Dagens Nyheter*       | National newspaper                | 1.29 | 2.33 |
| Svenska Dagbladet*    | National newspaper                | 0.78 | 1.82 |
| Rapport i SVT*        | Television news                   | 3.43 | 2.75 |
| Aktuellt i SVT*       | Television news                   | 2.91 | 2.62 |
| Nyheterna i TV4*      | Television news                   | 2.59 | 2.61 |
| Ekot Sveriges Radio*  | Radio                             | 2.65 | 2.76 |
| Nyheter24             | Sensationalistic online newspaper | 0.74 | 1.38 |
| Fria Tider            | Alternative right                 | 0.32 | 1.14 |
| Samhällsnytt          | Alternative right                 | 0.33 | 1.18 |
| Nyheter idag          | Alternative right                 | 0.35 | 1.21 |
| Ledarsidorna.se       | Alternative right                 | 0.51 | 1.60 |
| Dagen                 | Alternative christian             | 0.11 | 0.53 |
| Dagens arena          | Alternative left                  | 0.10 | 0.50 |
| Aktuellt I Politiken  | Alternative left                  | 0.12 | 0.62 |
| Arbetaren             | Alternative left                  | 0.12 | 0.51 |
| Arbetet               | Alternative left                  | 0.16 | 0.67 |
| ETC                   | Alternative left                  | 0.40 | 1.13 |
| Expo                  | Alternative anti-racism           | 0.21 | 0.67 |
| Interasist, men       | Alternative anti racism           | 0.20 | 0.79 |
| Kurera.se             | Alternative medical               | 0.09 | 0.46 |
| Klimatupplysningen.se | Alternative climate skeptic       | 0.08 | 0.57 |
| Kvartal               | Alternative center-right          | 0.16 | 0.82 |
| Dagens industri       | Economic newspaper (niche)        | 1.19 | 1.79 |
| Göteborgs-Posten*     | Local newspaper                   | 1.47 | 2.39 |
| Sydsvenskan*          | Local newspaper                   | 0.62 | 1.53 |

N = 3,107; \*mainstream news media.



varying levels of public debate in the Swedish case: climate change, vaccination, crime, genetically modified organisms (GMOs), and immigration. For each topic, respondents are asked to indicate whether four factual statements are correct, with response options running from (1) (very certain it is false) to 5 (very certain it is true). For each topic, two of the statements are compatible with the best available evidence (research and official statistics), while two of the statements represent misperceptions; not being compatible with the best available evidence. We have carefully created issue and statement combinations for which a high degree of expert consensus exists (Damstra et al., 2023; Vraga & Bode, 2020). Items were recoded so that the response categories of all items run from 1 (strong misperception) to 5 (strong accurate perception). Appendix B in the online materials provides more information on the statements and demonstrates remarkably similar descriptive statistics for Wave 1 and Wave 2. It also demonstrates that not all items for the separate issues form a reliable scale. However, combined, the 20 items form a reliable scale with an alpha of .75 (Wave 1) and .77 (Wave 2). Here, we are interested in the general patterns and do not focus on issue-specific misperceptions. Consequently, for each respondent, the scores of the 20 items were summed, generating an overall score between 20 (100% misbeliefs) to 100 (100% accurate beliefs). We normalized and recoded this score to run from 0 (lowest possible misperceptions) to 1 (highest possible misperceptions).

Control variables were all measured in the first wave. First, to account for alternative ways in which people may inform themselves, we include a measure tapping into news consumption through social media. Respondents are asked how often, in a typical week, they come across news or discussions about politics and society through Facebook, Twitter, Instagram, and YouTube. The response categories range from 1 (never) to 7 (several times a day) ( $\alpha = .58$ ; M = 2.45, SD = 1.21). We also include the frequency with which respondents talk about politics, ranging from 1 (never) to 7 (very often) (M = 4.31, SD = 1.59).

Second, considering Zaller's (1992) argument that more engaged audiences are more likely to receive political messages and internalize them, we control for political interest, which is measured in a straightforward way. Respondents are asked: "Generally speaking, how interested are you in politics?," with response categories ranging from 1 (not at all interested) to 4 (very interested) (M = 2.05; SD = 0.76). Next, we also control for a measure for "textbook" political knowledge, another indicator of high engagement with and interest in politics, that also quite logically relates to our dependent variable. Political knowledge was measured as a summative index of four questions related to basic political facts (M = 2.74, SD = 0.97). Given previous research connecting trust in media and accurate political perceptions (Ladd, 2011), we also control for media trust by asking:



"Generally speaking, to what extent do you trust information from the news media in Sweden?," with response categories ranging from 1 (do not trust at all) to 7 (trust completely) (M = 4.81, SD = 1.33). Ideological selfidentification is measured by the question: "In politics, people sometimes talk of 'left' and 'right.' Where would you place yourself on this scale, where 0 means the left and 10 means the right?" (M = 4.99; SD = 4.99). Finally, we include basic demographic characteristics: age (six groups, M = 3.55, SD = 1.63) and education (nine categories, M = 5.66, SD = 2.03) and gender (52% female).

To answer our third research question, asking about the relationship between media repertoires and misperceptions, we conduct regression analyses where we predict misperceptions in Wave 1 based on media repertoires and control variables from Wave 1. To answer RQ4, we predict misperceptions in Wave 2 based on media repertoires and control variables from Wave 1, while also adding misperceptions in Wave 1 (lagged dependent variable) as a control variable to the model. We repeat those analyses for the separate issues that jointly compose our misperceptions index to assess the stability of our findings.

#### Results

Turning to the findings, we first present the results of our Latent Profile Analysis. Based on fit statistics, we find a solution with five clusters to have the best model fit compared to models with fewer clusters (log likelihood = -36378.02; AIC = 73034.04; BIC = 73895.45). Based on average use per medium, these five clusters are labeled and presented in Table 2 (for more elaborate information, see Table A1 in Appendix A in the online supplemental materials). Hence, the answer to RQ1 is that five media repertoires can be identified. The labels summarize the main orientation within each repertoire but are inherently a simplified description. The largest media repertoire, by far, is television users, which comprise almost half of respondents at 49.9%. Thereafter follows traditional omnivores, 21.6%; news minimalists, 11.6%; television avoiders, 11.3%; and online users, 5.5%.

RQ2 asked if there are any media repertoires dominated by usage of political alternative media. The straightforward answer is no. There is

<sup>&</sup>lt;sup>1</sup>We additionally tested models with more clusters—some of them demonstrated slightly better model fit, which might not be surprising given the high number of media variables included in the models. However, in terms of interpretation, the additional clusters did not represent any clear-cut unique additional media repertoire. A six-cluster solution, for example, reveals an additional small group that mainly relies on a single newspaper (Dagens Nyheter), but furthermore resembles the five-cluster solution.

| Class | Label                 | Percentage | N     |
|-------|-----------------------|------------|-------|
| 1     | News minimalists      | 11.6       | 422   |
| 2     | Television users      | 49.9       | 1.812 |
| 3     | Television avoiders   | 11.3       | 411   |
| 4     | Online users          | 5.5        | 201   |
| 5     | Traditional omnivores | 21.6       | 785   |

Table 2. Media repertoires.

one media repertoire-online users-with individuals who use alternative media to a considerable degree, but they do this in conjunction with other, more traditional online media. It should also be noted that the share of respondents in this cluster is quite limited, which suggests that the use of political alternative media might be less widespread than suggested by the Reuters Digital News Report (Newman et al., 2020).

In all other categories, respondents mainly use mainstream media. There, however, exist some nuanced differences in the supplementary use of alternative media. Among news minimalists and television users, the use of alternative media is close to absent, while in the television avoiders cluster and among traditional omnivores, we do find low, yet noticeable use of alternative media such as Fria Tider (an anti-immigration online newspaper) and Interasist, men (an anti-racist website that scrutinizes the far-right political party Sweden Democrats) by television avoiders and Samhällsnytt and Ledarsidorna.se (both far-right websites) by traditional omnivores. An additional analysis demonstrates that the correlation between the usage of various national mainstream media and alternative media is on average slightly positive (r = .02), which indicates that alternative media do not function as a replacement for mainstream media. This underlines the findings of the LCA that alternative media are used in conjunction with other media.

A key question in this study-addressed by RQ3-is the relationship between different media repertoires and levels of misperceptions. The initial findings are displayed in Figure 1, which shows that news minimalists (1) and TV users (2) hold the highest degree of misperceptions, followed by traditional omnivores (5) and television avoiders (3). Somewhat remarkable, online users, the media repertoire where alternative media use (4) is considerably higher than in other repertoires, hold fewest misperceptions. Overall, it should however also be noted that levels of misperceptions are relatively low, with average scores around .3 on a 0 to 1 scale.

For a more stringent test, Table 3 presents the association between news repertoires and misperceptions found in a multivariate analysis, controlling for a range of individual background characteristics. These results show that not all the differences in the mean comparisons presented in Figure 1 remain significant.



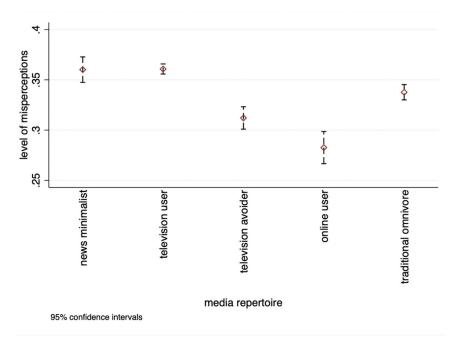


Figure 1. Level of misperceptions per media repertoire (wave 1), mean values.

Table 3. Predicting misperceptions in wave 2.

| Misperceptions (Wave 2)       | В       | р    | SE   | β    |
|-------------------------------|---------|------|------|------|
| News repertoires <sup>1</sup> |         |      |      |      |
| Television users              | .010    | .112 | .007 | .056 |
| Television avoiders           | 023**   | .005 | .008 | 079  |
| Online users                  | 029**   | .003 | .010 | 077  |
| Traditional omnivores         | .001    | .937 | .007 | .003 |
| Political talk                | 005**   | .002 | .002 | 079  |
| Political interest            | .010**  | .003 | .003 | .081 |
| Trust in media                | 016***  | .000 | .002 | 228  |
| Left-right                    | .002*   | .032 | .001 | .046 |
| Textbook political knowledge  | 017***  | .000 | .002 | 172  |
| Age                           | .004**  | .002 | .001 | .070 |
| Education                     | 009***  | .000 | .001 | 202  |
| Female                        | 028***  | .000 | .004 | 151  |
| Constant                      | .535*** | .000 | .020 |      |
| R2                            |         |      | .268 |      |

N = 1,834, \*p < .05, \*\*p < .01, \*\*\*p < .001.

Taking our control variables into account, those in the media repertoires television avoiders and online users hold the lowest degree of misperceptions, while television users score highest on misperceptions.



Overall, these results only partially demonstrate a negative association between mainstream media use and misperceptions: while newspaper use (particularly present among television avoiders and omnivores) in general comes with lower levels of misperceptions, this is not the case for television use. We do not find evidence for a positive association between alternative media use and holding misperceptions, as has often been found in previous research in the U.S. context.

The results also show that the control variables affect misperceptions in significant ways, but, while the effects are significant in many instances, effect sizes are relatively small, with  $\beta$  coefficients only indicating small changes in absolute levels of misperceptions. For example, interpersonal communication, trust in media and political knowledge are associated with lower levels of misperceptions, while political interest is, maybe surprisingly, positively associated with misperceptions. Higher educated, younger people, and females hold lower levels of misperceptions as well.

An additional analysis where we replace the media clusters with summative indexes for different types of media including TV, national newspapers, local (online) and niche outlets (economic newspaper Dagens Industri) and alternative media confirm the findings, but also provides additional insight in relation to RQ3 (see Table A2 in Appendix A in the online supplemental materials). Results demonstrate that newspaper use indeed is negatively associated with misperceptions, while TV use has a positive association. The results also show that local media use is negatively associated with misperceptions, while alternative media use as such does not have a significant relationship with levels of misperceptions. An additional noteworthy finding is that the explained variances do not substantially differ across models. The model using the media repertoire approach explains 26.8% of the variance in misperceptions; the explained variance in the model using the more traditional exposure measures is comparable: 27%. Thus, while repertoires provide a useful distinction in understanding the patterns in media use, they do not provide additional explanatory leverage for understanding misperceptions. A replication of the lagged dependent variable with indexes for different types of media resemble the findings reported in Table 3 (see Table A3 in Appendix in the online supplemental materials), with no substantial effects of media use on misperceptions.

We also investigate whether results are similar across different issues that underlie the misconceptions index. Results of an issue-by-issue analysis (see Table A4 in the Appendix in the online supplemental materials) demonstrate that this is largely the case. We do see that misperceptions for some issues are more strongly affected by news use than others (e.g.



immigration), but we did not find significantly different effects of news profiles or misperceptions in any of those instances.

Turning to the final research question (RQ4), we are interested in the dynamic nature of misperceptions and, more specifically, in the effect of different media repertoires on changes in levels of misperceptions. Table 4 presents the same analysis as was presented in Table 3 but adds a lagged dependent variable, thus focusing on over-time changes in misperceptions that might be related to media use.

The answer to RQ4 is straightforward: there are no differences in levels of misperceptions between the news repertoires when controlling for initial levels of misperceptions. This indicates that levels of misperceptions are stable, which is also reflected in the large effect of the lagged dependent variable in the model. Because of this, the room for media effects is very limited. An analysis with different types of media confirms the absence of media use effects. Again, we also consider issue-specific effects. Table A5 in the online appendix reports the findings. Also, when we consider misperceptions per issue, we see little effects of news repertoires, with one noteworthy exception. With the issue of immigration, we see that online users and traditional omnivores have decreasing misperceptions over time. In both clusters, alternative media play some role, which further underlines that alternative media use in reality does not contribute to growing misperceptions.

**Table 4.** Predicting misperceptions in wave 2, lagged dependent variable model.

|                               | •       |      |      |      |
|-------------------------------|---------|------|------|------|
| Misperceptions (Wave 2)       | В       | р    | SE   | β    |
| Misperceptions (Wave 1)       | .664    | .000 | .017 | .689 |
| News repertoires <sup>1</sup> |         |      |      |      |
| Television user               | 001     | .855 | .005 | 005  |
| Television avoider            | 007     | .219 | .006 | 026  |
| Online user                   | 009     | .196 | .007 | 024  |
| Traditional omnivores         | 003     | .519 | .005 | 016  |
| Political talk                | 001     | .319 | .001 | 019  |
| Political interest            | .004    | .137 | .003 | .030 |
| Trust in media                | 006***  | .000 | .001 | 089  |
| Left-right                    | .001    | .360 | .001 | .014 |
| Textbook knowledge            | 004*    | .011 | .002 | 041  |
| Age                           | .002*   | .026 | .001 | 038  |
| Education                     | 002**   | .001 | .001 | 053  |
| Female                        | 004     | .219 | .003 | 019  |
| Constant                      | .148*** | .000 | .018 |      |
| R2                            |         |      | .607 |      |

N = 1,796, \*p < .05, \*\*p < .01, \*\*\*p < .001.

#### **Discussion and conclusions**

Recent scientific and public debates have devoted ample attention to the prevalence of misinformation and misperceptions, and the potentially harmful consequences of political alternative media that are more likely to spread mis- and disinformation and thereby foster misperceptions among citizens (Strömbäck et al., 2022a). In this study, we put some of the widely shared concerns to an empirical test. Our analysis of media use and misperceptions among the Swedish population provides surprisingly little reason for concern. First, the use of political alternative media is limited, and few people use political alternative media. If they use them, it is usually in conjunction with other media that can be found online. In addition, people that have political alternative media in their diet seem to hold lower levels of misperceptions, probably because political alternative media are only a small part of their media consumption, or they use them just to know what is available.

In more general terms, we find that traditional media still dominate people's news use in Sweden and the different media repertoires we find reflect those media. The media repertoires we found are also quite similar to what previous studies in Sweden have found, even though the number of media included differs (Andersen et al., 2022; Strömbäck et al., 2018). We find that the use of television news is positively associated with levels of misperceptions, while additional analyses of the use of various types of media revealed that newspaper use is associated with lower levels of misperceptions. Overall, it is important to emphasize that differences in misperceptions across different media repertoires are limited in absolute terms. Additionally, misperceptions are stable over time, with high correlations between the level of misperceptions in the two waves, collected a year apart, and media repertoires do not add much to the explanation of changes between the waves. We do find some more issue specific effects and they confirm that media repertoires that include alternative media use do not yield more misperceptions either.

While not the main focus of the current contribution, some of the findings for the control variables are worth noting. The negative associations between misperceptions and textbook political knowledge in all models are consistent with previous research (Garrett et al., 2016), with Zaller's (1992) arguments and, hence, indirectly can be viewed as evidence supporting the construct validity of the current misperceptions measure. The negative association between media trust and misperceptions, also consistent with previous research (Ladd, 2011), also carries important implications. The fact that trust in media reduces political misperceptions indirectly provides implicating evidence that the news media indeed play an important part in shaping these perceptions. This stands in some contrast to the positive effect of televisionbased diet on misperceptions, especially given that television emerges from the data as the most frequently used source of news.

Despite these findings, some caveats should be noted. First, while we carefully created and used statement combinations for which a high degree of expert consensus exists and included five different issue domains, we do not

know the extent to which our results on the effects of media use are sensitive to how misperceptions are measured and whether results would have been different if other issue domains are included. Thus, future research should explore the relationship between media use and misperceptions using different types of issue domains and ways of measuring misperceptions (see also Lindgren et al., 2022). Second, while general media use patterns are informative, and people using certain media might be more prone to misperceptions than others, future research should delve more into the actual content of political news and combine (changes in) perceptions with the content people are exposed to (De Vreese et al., 2017). Additionally, in this study we focused on Sweden, in many respects a most different case within the family of Western democracies compared to the United States (Hallin & Mancini, 2004). In neither case is it clear how sensitive findings are to the context of their country. Hence, systematic and cross-national research on the relationship between media repertoires and misperceptions is warranted. It might well be that Sweden, with its relatively strong newspaper market and public broadcasting is an exceptional case, and that the use of political alternative media in other contexts is more consequential. Finally, the time lag in our study was one year, which may be too long. More longitudinal research covering other, and multiple, time spans is hence warranted to explore this relationship further.

Nevertheless, two key take-aways are that media repertoires do matter for levels of misperceptions, but that the use and effects of political alternative media is quite limited. Hence, while sometimes alarmist accounts of the negative consequences of political alternative media are widely present, they should not be taken over blindly. As with the use and effects of all other types of media, the use and effects of alternative media are context dependent and require empirical assessments.

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## Notes on contributors

Rens Vliegenthart is a professor of strategic communication, Wageningen University & Research.



Jesper Strömback is a professor of journalism and political communication, University of Gothenburg.

*Hajo Boomgaarden* is a professor of Methods in the Social Sciences with a focus on Text Analysis, University of Vienna.

Elena Broda is a PhD candidate in political communication, University of Gothenburg.

Alyt Damstra is a postdoctoral researcher in political communication, University of Amsterdam.

Elina Lindgren is a postdoctoral researcher in political communication, University of Gothenburg.

Yariv Tsfati is a professor of communication science, University of Haifa.

Annelien Van Remoortere is an assistant professor of in political communication, Wageningen University & Research.

#### **ORCID**

Elina Lindgren http://orcid.org/0000-0002-9032-1347

#### References

- Aalberg, T., & Curran, J. (Eds.). (2012). How media inform democracy. A comparative approach. Routledge.
- Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. Journal of Economic Perspectives, 31(2), 211-236. https://doi.org/10. 1257/jep.31.2.211
- Andersen, K., Johansson, J., Johansson, B., & Shehata, A. (2022). Maintenance and reformation of news repertoires: A latent transition analysis. Journalism & Mass Communication Quarterly, 99(1), 237-261. https://doi.org/10.1177/ 10776990211019750
- Bauer, A. J., Nader, A., & Nelson, J. L. (2022). What is fox news? Partisan journalism, misinformation, and the problem of classification. Electronic News: Broadcast and Mobile Journalism, 16(1), 18-29. https://doi.org/10.1177/ 19312431211060426
- Benkler, Y., Faris, R., & Roberts, H. (2018). Network propaganda. Manipulation, disinformation, and radicalization in American politics. Oxford University Press. https://doi.org/10.1093/oso/9780190923624.001.0001
- Bennett, W. L., & Livingston, S. (2018). The disinformation order: Disruptive communication and the decline of democratic institutions. European Journal of Communication, 33(2), 122-139. https://doi.org/10.1177/0267323118760317
- Bos, L., Kruikemeier, S., De Vreese, C., & Chialvo, D. R. (2016). Nation binding: How public service broadcasting mitigates political selective exposure. PloS One, 11(5), e0155112. https://doi.org/10.1371/journal.pone.0155112
- Bullock, J. G., & Lenz, G. (2019). Partisan bias in surveys. Annual Review of Political Science, 22(1), 325-342. https://doi.org/10.1146/annurev-polisci-051117-050904



- Castro, L., Strömbäck, J., Esser, F., Van Aelst, P., de Vreese, C., Aalberg, T., Cardenal, A. S., Corbu, N., Hopmann, D. N., Koc-Michalska, K., Matthes, J., Schemer, C., Sheafer, T., Splendore, S., Stanyer, J., Stepinska, A., Stetka, V., & Theocharis, Y. (2021). Navigating high-choice European political information environments: A comparative analysis of news user profiles and political knowledge. The International Journal of Press/politics, 27(4), 827-859. https:// doi.org/10.1177/19401612211012572
- Chadwick, A. (2013). The hybrid media system: Politics and power. Oxford University Press.
- Cook, T. E. (2005). Governing with the news. The news media as a political institution (2nd ed.). University of Chicago Press. https://doi.org/10.7208/chicago/ 9780226026688.001.0001
- Cushion, S., McDowell-Naylor, D., & Richard, T. (2021). Why national media systems matter: A longitudinal analysis of how UK left-wing and right-wing alternative media critique mainstream media (2015-2018). Journalism Studies, 22 (5), 633–652. https://doi.org/10.1080/1461670X.2021.1893795
- Damstra, A., Vliegenthart, R., Boomgaarden, H., Glüer, K., Lindgren, E., Strömbäck, J., & Tsfati, Y. (2023). Knowledge and the news: An investigation of the relation between news use, news avoidance, and the presence of (mis) beliefs. The International Journal of Press/politics, 28(1), 29-48. https://doi.org/ 10.1177/19401612211031457
- De Vreese, C. H., & Boomgaarden, H. (2006). News, political knowledge and participation: The differential effects of news media exposure on political knowledge and participation. Acta Politica, 41(4), 317-341. https://doi.org/10.1057/ palgrave.ap.5500164
- De Vreese, C. H., Boukes, M., Schuck, A., Vliegenthart, R., Bos, L., & Lelkes, Y. (2017). Linking survey and media content data: Opportunities, considerations, and pitfalls. Communication Methods and Measures, 11(4), 221-244. https://doi. org/10.1080/19312458.2017.1380175
- Edgerly, S. (2015). Red media, blue media, and purple media: News repertoires in the colorful media landscape. Journal of Broadcasting & Electronic Media, 59(1), 1-21. https://doi.org/10.1080/08838151.2014.998220
- Egelhofer, J. L., & Lecheler, S. (2019). Fake news as a two-dimensional phenomenon: A framework and research agenda. Annals of the International Communication Association, 43(2), 97-116. https://doi.org/10.1080/23808985. 2019.1602782
- Esser, F., & Strömbäck, J. (Eds.). (2014). Mediatization of politics. Understanding the transformation of Western democracies. Palgrave Macmillan. https://doi.org/10. 1057/9781137275844
- Eveland, W. P. (2000). The cognitive mediation model of learning from the news: Evidence from nonelection, off-year election, and presidential election contexts. Research, 28(5), 571-601. https://doi.org/10.1177/ Communication 009365001028005001
- Fawzi, N., & Krämer, B. (2021). The media as part of a detached elite? Exploring antimedia populism among citizens and its relation to political populism. International Journal of Communication, 15, 3292-3314.
- Feldman, L., Maibach, E. W., Roser-Renouf, C., & Leiserowitz, A. (2012). Climate on cable: The nature and impact of global warming coverage on fox news, CNN, and MSNBC. The International Journal of Press/politics, 17(1), 3-31. https://doi. org/10.1177/1940161211425410



- Figenschou, T. U., & Ihlebaek, A. K. (2019). Challenging journalistic authority: Media criticism in far-right alternative media. Journalism Studies, 20(9), 1221-1237. https://doi.org/10.1080/1461670X.2018.1500868
- Fletcher, R., & Nielsen, R. K. (2017). Are news audiences increasingly fragmented? A cross- national comparative analysis of cross-platform news audience fragmentation and duplication. Journal of Communication, 67(4), 476-498. https:// doi.org/10.1111/jcom.12315
- Flynn, D. J. (2016). The scope and correlates of misperceptions in the mass public [Paper presentation]. Annual Meeting of the American Political Science Association, Philadelphia, USA.
- Flynn, D. J., Nyhan, B., & Reifler, J. (2017). The nature and origins of misperceptions: Understanding false and unsupported beliefs about politics: Nature and origins of misperceptions. Advances in Political Psychology, 38, 127-150. https:// doi.org/10.1111/pops.12394
- Fraile, M., & Iyengar, S. (2014). Not all news sources are equally informative: A cross- national analysis of political knowledge in Europe. The International Press/politics, 19(3), 275-294. https://doi.org/10.1177/ Iournal 1940161214528993
- Garrett, R. K., Carnahan, D., & Lynch, E. K. (2013). A turn toward avoidance? Selective exposure to online political information, 2004–2008. Political Behavior, 35(1), 113–134. https://doi.org/10.1007/s11109-011-9185-6
- Garrett, R. K., Long, J. A., & Jeong, M. S. (2019). From partisan media to misperception: Affective polarization as mediator. Journal of Communication, 69(5), 490-512. https://doi.org/10.1093/joc/jqz028
- Garrett, R. K., Weeks, B. E., & Neo, R. L. (2016). Driving a wedge between evidence and beliefs: How online ideological news exposure promotes political misperceptions. Journal of Computer-Mediated Communication, 21(5), 331-348. https://doi.org/10.1111/jcc4.12164
- Geers, S., & Vliegenthart, R. (2021). Being inside or outside the virtuous circle: How news media repertoires relate to political participation repertoires. International Journal of Communication, 15, 3719-3739.
- Graves, L. (2016). Deciding what's true. The rise of political fact-checking in American journalism. Columbia University Press. https://doi.org/10.7312/ grav17506
- Hallin, D. C., & Mancini, P. (2004). Comparing media systems: Three models of media and politics. Cambridge University Press.
- Hanitzsch, T., Hanusch, F., Ramaprasad, J., & de Beer, A. S. (Eds.). (2019). Worlds of journalism. Journalistic cultures around the world. Columbia University Press.
- Heft, A., Mayerhöffer, E., Reinhardt, S., & Knüpfer, C. (2020). Beyond Breitbart: Comparing right-wing digital news infrastructures in six Western democracies. Policy & Internet, 12(1), 20-45. https://doi.org/10.1002/poi3.219
- Hmielowski, J. D., Feldman, L., Myers, T. A., Leiserowitz, A., & Maibach, E. (2014). An attack on science? Media use, trust in scientists, and perceptions of global warming. Public Understanding of Science, 23(7), 866-883. https://doi.org/10. 1177/0963662513480091
- Holt, K. (2018). Alternative media and the notion of anti-systemness: Towards an analytical framework. Media and Communication, 6(4), 49-57. https://doi.org/10. 17645/mac.v6i4.1467



- Holt, K., Figenschou, T. U., & Frischlich, L. (2019). Key dimensions of alternative news media. Digital Journalism, 7(7), 860-869. https://doi.org/10.1080/21670811. 2019.1625715
- Hutchens, M. J., Hmielowski, J. D., Beam, M. A., & Romanova, E. (2021). Trust over use: Examining the roles of media use and media trust on misperceptions in the 2016 US presidential election. Mass Communication & Society, 24(5), 701–724. online early. https://doi.org/10.1080/15205436.2021.1904262
- Ihlebaek, K. A., & Nygaard, S. (2021). Ring-wing alternative media in the Scandinavian political communication landscape. In E. Skogerbø, Ø. Ihlen, N. Nørgaard Kristensen, & L. Nord (Eds.), Power, communication, and politics in the Nordic countries (pp. 263-282). Nordicom.
- Jamieson, K. H., & Cappella, J. N. (2008). Echo chamber. Rush Limbaugh and the conservative media establishment. Oxford University Press.
- Johansson, B., & Strömbäck, J. (2019). Kampen om mediebilden: Nyhetsjournalistik i valrörelsen 2018. Institutet för Mediestudier.
- Kavanagh, J. & Rich, M. D. (2018). Truth decay. An initial exploration of the diminishing role of facts and analysis in American public life. Rand. https://doi. org/10.7249/RR2314
- Klawier, T., Prochazka, F., & Schweiger, W. (2021). Public knowledge of alternative media in times of algorithmically personalized news. New Media and Society, 25 (7), 1648–1667. online first. https://doi.org/10.1177/14614448211021071
- Knobloch-Westerwick, S. (2014). Choice and preference in media use: Advances in selective exposure theory and research. Routledge.
- Kovach, B., & Rosenstiel, T. (2021). Elements of journalism. What newspeople should know and the public should expect (4th ed.). Crown.
- Kuklinski, J. H., Quirt, P. J., Jerit, J., & Rich, R. F. (2000). Misinformation and the currency of democratic citizenship. The Journal of Politics, 62(3), 790-816. https://doi.org/10.1111/0022-3816.00033
- Kull, S., Ramsay, C., & Lewis, E. (2003). Misperceptions, the media, and the Iraq war. Political Science Quarterly, 118(43), 569-598. https://doi.org/10.1002/j.1538-165X.2003.tb00406.x
- Kunda, Z. (1990). The case for motivated reasoning. Psychological Bulletin, 108(3), 480-498. https://doi.org/10.1037/0033-2909.108.3.480
- Ladd, J. M. (2011). Why Americans hate the media and how it matters. Princeton University Press.
- Leonhard, L., Karnowski, V., & Kümpel, A. S. (2020). Online and (the feeling of being) informed: Online news usage patterns and their relation to subjective and objective political knowledge. Computers in Online Behavior, 103, 181-189. https://doi.org/10.1016/j.chb.2019.08.008
- Levendusky, M. (2013). How partisan media polarize America. University of Chicago Press.
- Lindgren, E., Damstra, A., Strömbäck, J., Tsfati, Y., Vliegenthart, R., & Boomgaarden, H. (2022). Uninformed or misinformed? A review of the conceptual-operational gap between (lack of) knowledge and (mis)perceptions. In J. Strömbäck, Å. Wikforss, K. Glüer, T. Lindholm, & H. Oscarsson (Eds.), Knowledge resistance in high-choice information environments (pp. 187-206). Routledge.
- Lodge, M., & Taber, C. S. (2013). The rationalizing voter. Cambridge University Press.



- Müller, P., & Freudenthaler, R. (2022). Right-wing, populist, controlled by foreign powers? Topic diversification and partisanship in the content structures of German-Language alternative media. Digital Journalism, 10(8), 1363-1386. online first. https://doi.org/10.1080/21670811.2022.2058972
- Mutz, D. C. (1998). Impersonal influence. How perceptions of mass collectives affect political attitudes. Cambridge University Press.
- Newman, N., Fletcher, R., Kalogeropoulos, A., Levy, D. A., & Nielsen, R. K. (2018), Digital news report 2018. Reuters Institute for the Study of Journalism.
- Newman, N., Fletcher, R., Schulz, A., Andi, S., & Nielsen, R. K. (2020). Reuters Institute digital news report 2020. Reuters Institute for the Study of Journalism.
- Newman, N., & Kalogeropoulos, A. (2018). Who uses alternative and partisan brands? In N. Newman, R. Fletcher, A. Kalogeropoulos, D. A. Levy, & R. K. Nielsen (Eds.), Digital news report 2018 (pp. 45-48). Reuters Institute for the Study of Journalism.
- Nickerson, R. S. (1998). Confirmation bias. A ubiquitous phenomenon in many guises. Review of General Psychology, 2(2), 175-220. https://doi.org/10.1037/ 1089-2680.2.2.175
- Nygaard, S. (2019). The appearance of objectivity: How immigration-critical alternative media report the news. Journalism Practice, 13(10), 1147–1163. https://doi. org/10.1080/17512786.2019.1577697
- Nygaard, S. (2021). On the mainstream/alternative continuum: Mainstream media reactions to right-wing alternative news media. Digital Journalism, 1-17. online first. https://doi.org/10.1080/21670811.2021.1894962
- Nyhan, B., & Reifler, J. (2015). Does correcting myths about the flu vaccine work? An experimental evaluation of the effects of corrective information. Vaccine: X, 33(3), 459–464. https://doi.org/10.1016/j.vaccine.2014.11.017
- O'Connor, C., & Weatherall, J. O. (2019). The misinformation age. How false beliefs spread. Yale University Press.
- O'Neill, D., & Harcup, T. (2009). News values and selectivity. In K. Wahl-Jorgensen & T. Hanitzsch (Eds.), Handbook of journalism studies (pp. 161-174). Routledge.
- Pariser, E. (2011). The filter bubble: What the Internet is hiding from you. Penguin Press. https://doi.org/10.3139/9783446431164
- Pennycook, G., & Rand, D. G. (2019). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. Cognition, 188, 39-50. https://doi.org/10.1016/j.cognition.2018.06.011
- Peterson, E., & Iyengar, S. (2021). Partisan gaps in political information and information-seeking behavior: Motivated reasoning or cheerleading? American Journal of Political Science, 65(1), 133-147. https://doi.org/10.1111/ajps.12535
- Pingree, R. J., Brossard, D., & McLeod, D. M. (2014). Effects of journalistic adjudication on factual beliefs, news evaluations, information seeking, and epistemic political efficacy. Mass Communication and Society, 17(5), 615-638. https:// doi.org/10.1080/15205436.2013.821491
- Price, V., & Zaller, J. (1993). Who gets the news? Alternative measures of news reception and their implications for research. Public Opinion Quarterly, 57(2), 133-164. https://doi.org/10.1086/269363
- Sandberg, L. A. C., & Ihlebaek, K. A. (2019). Exploring the link between right-wing alternative media and social media during the Swedish 2018 election. Statsvetenskaplig tidskrift, 121(3), 421-440.
- Schulz, A., Wirth, W., & Müller, P. (2020). We are the people and you are fake news: A social identity approach to populist citizens' false consensus and hostile



- media perceptions. Communication Research, 47(2), 201–226. https://doi.org/10. 1177/0093650218794854
- Schulze, H. (2020). Who uses right-wing alternative online media? An exploration of audience characteristics. Politics & Governance, 8(3), 6-18. https://doi.org/10. 17645/pag.v8i3.2925
- Schwarzenegger, C. (2021). Understanding the users of alternative news media— Media epistemologies, news consumption, and media practices. Digital Journalism, 11(5), 1-19.
- Shehata, A., Hopmann, D. N., Nord, L., & Höijer, J. (2015). Television channel content profiles and differential knowledge growth: A test of the inadvertent learning hypothesis using panel data. Political Communication, 32(3), 377–395. https://doi.org/10.1080/10584609.2014.955223
- Shehata, A., & Strömbäck, J. (2014). Mediation of political realities: Media as crucial sources of information. In F. Esser & J. Strömbäck (Eds.), Mediatization of politics. Understanding the transformation of Western democracies (pp. 93-113). Palgrave Macmillan UK.
- Shehata, A., & Strömbäck, J. (2021). Learning political news from social media: Network media logic and current affairs news learning in a high-choice media environment. Communication Research, 48(1), 125-147. https://doi.org/10.1177/ 0093650217749354
- Steppat, D., Castro, L., & Esser, F. (2023). What news users perceive as 'alternative media' varies between countries: How media fragmentation and polarization matter. Digital Journalism, 11(5), 741-761. online first. https://doi.org/10.1080/ 21670811.2021.1939747
- Strömbäck, J., Boomgaarden, H., Broda, E., Damstra, A., Lindgren, E., Tsfati, Y., & Vliegenthart, R. (2022a). From low-choice to high-choice media environments: Implications for knowledge resistance. In J. Strömbäck, Å. Wikforss, K. Glüer, T. Lindholm, & H. Oscarsson (Eds.), Knowledge resistance in high-choice information environments (pp. 49-68). Routledge.
- Strömbäck, J., Falasca, K., & Kruikemeier, S. (2018). The mix of media use matters: Investigating the effects of individual news repertoires on offline and online political participation. Political Communication, 45(3), 413-432. https://doi.org/ 10.1080/10584609.2017.1385549
- Strömbäck, J., Wikforss, Å., Glüer, K., Lindholm, T., & Oscarsson, H., (Eds.) (2022b). Knowledge resistance in high-choice information environments. Routledge. https://doi.org/10.4324/9781003111474
- Syvertsen, T., Mjøs, O. J., Moe, H., & Enli, G. S. (2014). The media welfare state: Nordic media in the digital era. University of Michigan Press. https://doi.org/10. 2307/j.ctv65swsg
- Tandoc, E. C., Lim, Z. W., & Ling, R. (2018). Defining "Fake news". A typology of scholarly definitions. Digital Journalism, 6(2), 137-153. https://doi.org/10.1080/ 21670811.2017.1360143
- Theorin, N., & Strömbäck, J. (2020). Some media matter more than others: Investigating media effects on attitudes toward and perceptions of immigration in Sweden. International Migration Review, 54(4), 1238-1264. https://doi.org/10. 1177/0197918319893292
- Tsfati, Y. (2003). Media skepticism and climate of opinion perception. International Journal of Public Opinion Research, 15(1), 65-82.
- Tsfati, Y., Boomgaarden, H. G., Strömbäck, J., Vliegenthart, R., Damstra, A., & Lindgren, E. (2020). Causes and consequences of mainstream media



- dissemination of fake news: Literature review and synthesis. Annals of the International Communication Association, 44(2), 157–173. https://doi.org/10. 1080/23808985.2020.1759443
- Van Aelst, P., Strömbäck, J., Aalberg, T., Esser, F., de Vreese, C., Matthes, J., Hopmann, D., Salgado, S., Hubé, N., Stepinska, A., Papathanassopoulos, S., Berganza, R., Legnante, G., Reinemann, C., Sheafer, T., & Stanyer, J. (2017). Political communication in a high-choice media environment: A challenge for democracy? Annals of the International Communication Association, 41(1), 3-27. https://doi.org/10.1080/23808985.2017.1288551
- Vargo, C. J., Guo, L., & Amazeen, M. A. (2018). The agenda-setting power of fake news. A big data analysis of the online media landscape from 2014 to 2016. New Media & Society, 20(5), 2028-2049. https://doi.org/10.1177/1461444817712086
- Vraga, E. K., & Bode, L. (2020). Defining misinformation and understanding its bounded nature: Using expertise and evidence for describing misinformation. Political Communication, 37(1), 136-144.
- Waisbord, S. (2018). The elective affinity between post-truth communication and populist politics. Communication Research & Practice, 4(1), 17-34. https://doi. org/10.1080/22041451.2018.1428928
- Zaller, J. R. (1992). The nature and origins of mass opinion. Cambridge University Press.