Article

Why do Citizens Choose to Read Fact-Checks in the Context of the Russian War in Ukraine? The Role of Directional and Accuracy Motivations in Nineteen Democracies

Marina Tulin[1], Michael Hameleers[1],
Claes de Vreese[1,2], Toril Aalberg[3], Nicoleta Corbu[4],
Patrick Van Erkel[1], Frank Esser[5], Luisa Gehle[6],
Denis Halagiera[7], David Nicolas Hopmann[2],
Karolina Koc-Michalska[8,9], Jörg Matthes[10],
Sabina Mihelj[11], Christian Schemer[6], Vaclav Stetka[11],
Jesper Strömbäck[12], Ludovic Terren[13],
and Yannis Theocharis[14]

Abstract

The recent surge of false information accompanying the Russian invasion of Ukraine has re-emphasized the need for interventions to counteract disinformation. While fact-checking is a widely used intervention, we know little about citizen motivations to read fact-checks. We tested theoretical predictions related to accuracy-motivated goals (i.e., seeking to know the truth) versus directionally-motivated goals (i.e., seeking to confirm existing beliefs) by analyzing original survey data ($n = 19,037$) collected in early April to late May 2022 in nineteen countries, namely Austria, Belgium, Brazil, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Netherlands, Poland, Romania, Serbia, Spain, Sweden, Switzerland, UK, and USA. Survey participants read ten statements about the Russian war in Ukraine and could opt to see fact-checks for each of these statements. Results of mixed models for three-level hierarchical data (level 1: statements, level 2: individuals, and level 3: countries) showed that accuracy motivations were better explanations than directional motivations for the decision to read fact-checks about the Russian war in Ukraine.

Keywords

misinformation, disinformation, fact-checking, motivated reasoning, accuracy motivations, directional motivations

Russia's invasion of Ukraine in early 2022 was accompanied by a sudden increase in false information. At the same time, fact-checkers from across the globe rushed to publish fact-checks (Suárez 2022) and debunking efforts continued to abound in the following months. However, despite a wealth of fact-checks on the supply side, and an abundance of research on the effectiveness of fact-checks, we know very little about motivations to read fact-checks among the general public, especially in the context of the Russia-Ukraine war. Given that people may selectively share fact-checks (Amazeen et al. 2019; Shin and Thorson 2017), or avoid fact-checks when they are not aligned with their beliefs (Hameleers and van der Meer 2020), it is crucial to explore why people may choose to (not) read fact-checks. After all, corrective information may not reach segments of the audience that need corrections most given their initial support for misinformed claims. A better understanding of the motives for people to select or avoid fact-checks may allow for a more targeted approach in corrective information, and contribute to strategies intending to overcome barriers of selecting fact-checks. Especially in times of high information need and uncertainty about the veracity of information, as is the case in global crises, it is crucial to assess the extent to which people engage in the cognitive effort needed to verify information.

In this paper, we therefore study why citizens read fact-checks about the Russian war in Ukraine and how this might differ across countries. We build on previous

[1]University of Amsterdam, Amsterdam, Netherlands
[2]University of Southern Denmark, Odense, Denmark
[3]Norwegian University of Science and Technology, Trondheim, Norway
[4]National University of Political Studies and Public Administration, Bucharest, Romania
[5]University of Zurich, Zurich, Switzerland
[6]Johannes Gutenberg University of Mainz, Mainz, Germany
[7]Adam Mickiewicz University, Poznan, Poland
[8]Audencia Business School, Nantes, France
[9]University of Silesia, Katowice, Poland
[10]University of Vienna, Vienna, Austria
[11]Loughborough University, Loughborough, UK
[12]University of Gothenburg, Gothenburg, Sweden
[13]University of Antwerp, Munchen, Germany
[14]Technical University of Munich, Germany

Corresponding Author:
Marina Tulin, Amsterdam School of Communication Research (ASCoR), University of Amsterdam, Nieuwe Achtergracht 166, Amsterdam, 1018 WV, Netherlands.
Email: m.tulin@uva.nl

research distinguishing between two types of (unconscious) reasoning that might be at play (Kunda 1990; Taber and Lodge 2006): (a) accuracy-motivated goals, which relate to wanting to arrive at the most accurate conclusions, and (b) directionally-motivated goals, which relate to wanting to confirm one's existing beliefs. Research so far finds that directional goals are more prominent motivators for reading fact-checks than accuracy goals (Walter et al. 2021). However, the precedence of directional goals in extant work might be due to a number of specific conditions, namely the partisan nature of the messages studied (Taber and Lodge 2006), as well as the focus on party ideology the predominance of studies conducted in the United States (Jerit and Zhao 2020). Under these circumstances, directional goals are primary drivers of fact-checking motivations. When it comes to other contexts and issues that severely affect citizens irrespective of partisanship, fact-checking motivations may play out differently. The Russian war in Ukraine is a case in point for several reasons. First, in many countries the war severely affected entire systems beyond partisanship, via harm to the global economy or the presence of an imminent threat. In the early stages of the war, which is the time frame of this study, directional motivations for consulting fact-checks may therefore be less pertinent. Second, the war is likely to trigger uncertainty and anxiety among many citizens. These same emotions have been found to reduce partisan effects on information processing and make individuals more open to corrective information (Weeks 2015). Similar to the case of the Covid-19 pandemic, high uncertainty and fast-changing events might trigger a need for orientation that steers individuals toward more accurate information (Van Aelst et al. 2021). In the case of the Russian war in Ukraine it is therefore conceivable that accuracy goals play an overall larger role in motivating individuals to read fact-checks.

The extent to which accuracy goals trump directional goals in this context might differ across countries. Some countries display a pro-Russian bias in the context of the war, whereas others are more supportive of Ukraine (Hameleers et al. 2023). Such differences might affect the relative prominence of directional motivations. Similarly, some countries are geographically closer to the war areas, and therefore more directly affected by the war. Such proximity might trigger accuracy motivations among its citizens more strongly because of the higher costs of being misinformed.

To investigate accuracy- and directionally-motivated fact-checking behaviors, we analyzed original survey data collected in nineteen countries, namely Austria, Belgium, Brazil, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Netherlands, Poland, Romania, Serbia, Spain, Sweden, Switzerland, UK, and USA in spring 2022. Survey participants ($N = 19,037$) read ten statements about the Russian war and were subsequently given the choice to consult fact-checks for any of these statements. The statements varied in terms of whether they were true, false, or unverified, and whether they had a pro-Ukrainian or pro-Russian bias. This variation was intended to mimic the actual information ecology as closely as possible, reflecting the diversity of information people were exposed to in the first weeks after the Russian invasion of Ukraine. In studying accuracy and directional motivations, we included a cross-country comparison to understand how decisions to read fact-checks differ across countries in the context of a global crisis. The overarching research

question of this study is: Why do individuals read fact-checks in the context of the Russian war in Ukraine?

Theory and Hypotheses

Motivations to Read Fact-Checks About the War

Research on corrective information has mostly focused on the effectiveness of fact-checks in refuting misperceptions (Walter and Tukachinsky 2020). Fact-checks offer an evaluation of political claims as well as a factual correction of suspicious statements made in various offline and digital media (Graves and Amazeen 2019). Different presentation formats, such as long-form fact-check articles or videos, have been shown to be effective (Young et al. 2018). While fact-checks seem effective when participants are forcefully exposed to them, actually selecting to view them might not be the type of behavior that occurs frequently in today's digital media environments (Graves and Amazeen 2019; Robertson et al. 2020). Therefore, it is crucial to explore what motivates citizens to verify information because only if fact-checks are selected in the first place can they have a positive effect on belief correction.

The selection of fact-checks may be contingent upon different motivations to seek out information. We can discern two specific—if unconscious—motivations: the motivation to be accurate versus the motivation to confirm prior beliefs (Taber and Lodge 2006) which is also referred to as motivated reasoning (Kunda 1990). Motivated reasoning can be understood as the guiding influence of people's existing beliefs and identities on the selection and processing of information (Chaiken 1980; Kunda 1990). People may show a tendency to seek out information that confirms prior beliefs and identities, while avoiding conflicting information.

In contrast to directionally-motivated goals, accuracy goals are more likely to drive individuals toward accurate information, irrespective of whether it confirms or challenges existing beliefs (Kunda 1990). Individuals who are motivated by accuracy goals exert more cognitive energy in processing information and seek to reach more correct conclusions (Nir 2011). Evidence in support of accuracy motivations shows that accuracy goals might be amplified under specific conditions, namely under uncertainty and when an issue is particularly relevant. When people are uncertain about the veracity of information, and do not believe that they have sufficient knowledge about the topic, they are more inclined to select additional information to manage their feelings of uncertainty (Berger and Kellermann 1994). In the case of the Russian war in Ukraine, uncertainty is likely amplified because the crisis situation poses a severe threat to many citizens (e.g., nuclear threat, expansion of the war to other areas). In support of this, previous work shows that in times of crisis and uncertainty, citizens' need for orientation increases (Lowrey 2004; Van Aelst et al. 2021), which might trigger accuracy goals.

Since accuracy and directional motivations are not directly observable and difficult to assess in a cross-country survey, we rely on a number of indicators and proxies as further described in the following sections. We formulate partly competing hypotheses

relating to directional motivations versus accuracy motivations, as supported by extant literature. In times of high information need and uncertainty about the veracity of information, as is the case in global crises like the war in Ukraine, it remains an open question which motivational processes are more likely to lead citizens toward fact-checks. In this study, we seek to answer this question empirically, by simultaneously testing directional motivations and accuracy motivations.

Directional Motivations to Fact-Check

Previous research has shown that the selection of fact-checks is related to motivated reasoning (Hameleers and van der Meer 2020; Walter et al. 2021). Fact-checking messages are less likely to be selected when the claims they respond to are congruent with people's existing beliefs (Hameleers and van der Meer 2020). Fact-checks are also selectively shared by partisans to achieve directional goals. Specifically, partisans are more likely to share fact-checks that either favor their preferred candidate or delegitimize opposed candidates (Shin and Thorson 2017). People are also more likely to reject and counter-argue corrective messages when they run counter to their views (Thorson 2016). Overall, it thus seems that people may not consult corrective information when this threatens their prior beliefs, while they might do so if it helps to reassure their prior beliefs and identities—a strategy referred to as "affirming fact-checking" (Walter et al. 2021).

Against this backdrop, we expect that existing beliefs related to the ideological and attitudinal basis of statements concerning the Russian war in Ukraine may bias the selection of fact-checks. Irrespective of its actual veracity, the more people's prior beliefs align with the scrutinized statement, the less likely they should be to select a fact-check that might cast doubts on these beliefs. Likewise, people may resort to affirming fact-checking, meaning that they select a fact-check that they expect to further discredit a statement that they already believe to be false. Yet, Edgerly et al. (2020) found that this may also work the other way around: People may be most likely to verify information when they already believe that the headline is true. This effect can be explained as motivated by a confirmation bias: If people expect that they will encounter discrepant views in corrective information, they may be likely to avoid the verification. We deviate from this expectation for two main reasons. First, we study fact-checking intentions in an international context where partisan biases and partisan motivated reasoning are expected to play a less central role. Second, we focus on an unfolding crisis event for which information was surrounded by high levels of uncertainty. In addition, it should be stressed that selecting a fact-check is not the same as verifying information: Actual exposure to the fact-check may lower uncertainty, but people do not know beforehand whether the verdict rates the information as true or false. In this context, we expect that fact-checking serves as a way to mitigate uncertainty and gain knowledge in times of high need for factual information, which outperforms the need to avoid the discomfort of discrepant views.

To assess the biasing role of motivated reasoning in the context of the Russian war in Ukraine, we consider two factors, namely (a) people's evaluation of the statement's

veracity and (b) the alignment between people's stance on the war (i.e., whether they demonstrate a pro- or counter-Russian bias) and the pro- or counter-Russian bias of the statement. We introduce the following hypotheses on the role of directional motivated reasoning in the selection of fact-checks:

> H1: Individuals are more likely to select a fact-check if (a) they believe that the statement it checks is false and (b) if the ideological stance of the statement contradicts their ideological beliefs.

Accuracy Motivations to Fact-Check

Despite the potential relevance of directional motivations, several studies highlight the importance of accuracy motivations under specific conditions—several of which are met in the context of the Russian war in Ukraine. Compared to directional motivations, which are relatively directly indicated by an alignment between people's existing beliefs and the ideological stance of the fact-checked statement, accuracy motivations are less directly observable. We therefore rely on a number of indirect indicators of accuracy motivations as well as conditions that make it more likely for accuracy motivations to be present.

Seminal research suggests that uncertainty is a key condition under which accuracy motivations arise. This is because uncertainty, especially when paired with relevance, triggers a need for orientation (Matthes 2005; Weaver 1980), which is the psychological need to seek out relevant information in the face of unfamiliar situations. The need for orientation is closely related to accuracy motivations in the sense that accuracy-motivated behaviors are one way that the need for orientation can be satisfied. Under conditions of uncertainty about political issues, the news media are seen as a key source of relevant information that can provide orientation (Matthes 2005). Recent literature also suggests a link with verification behaviors, such that people are more likely to verify information when they experience uncertainty (Walter et al. 2021; Weeks 2015). Verifying information can fulfill the need for orientation because it can serve to reduce uncertainty when confronted with inconsistent, unavailable, or ambiguous information (Brashers 2001). In line with this, it has also been suggested that need for orientation, even more than the strength of ideology, predicts the sharing of fact-checking information (Amazeen et al. 2019). Thus, the higher individuals' need to be updated about mediatized events and issues, the more relevant it is for people to be certain that information is true. Fact-checks may offer an informational cue to reduce uncertainty about the veracity of information. Moving beyond sharing intentions (e.g., Amazeen et al. 2019), need for orientation should thus also play a role in the actual selection of fact-checking information. As a contribution to existing work in this field (e.g., Amazeen et al. 2019; Edgerly et al. 2020), we propose that people with a stronger need for orientation are more motivated to be accurately and completely informed on issues, which should also result in a stronger reliance on additional information that reduces uncertainty. We thus interpret fact-checking that takes place as a result of uncertainty as accuracy-motivated fact-checking.

If accuracy motivations are present, then we expect that the more people are uncertain about the veracity of content received in the information ecology, the more they should be motivated to verify the information and avoid the state of discomfort caused by uncertainty. If people are motivated by accuracy goals, then uncertainty should trigger the choice to read fact-checks that challenge (false) information. Uncertainty can arise at different levels and in this paper we make a broad distinction between situational versus dispositional uncertainty. Situational uncertainty refers to uncertainty that arises from the conditions and circumstances of a given situation. In the context of the Russian war in Ukraine, situational uncertainty may arise because the information ecology is threatened by mis- and disinformation and it is unclear which statements about the war can be trusted. Dispositional uncertainty, in contrast, is attributed to the individual and can be understood as individual differences in experience or tolerance of uncertainty. While it is clear that individuals and situations interact with each other in complex ways, making a clear distinction between situational versus dispositional uncertainty allows us to highlight their respective contributions to individual-level motivations to seek out fact-check information.

Situational Uncertainty. At the situation level, we rely on a number of global measures capturing uncertainty related to the veracity of information about the Russian war in Ukraine in the information ecology. As Russia invaded Ukraine, fact-checkers noted an alarming amount of false information and recurring disinformation narratives (Suárez 2022). Citizens have likely encountered at least some false claims, rumors, or disinformation narratives related to the war, which suggests uncertainty in the information environment. Moreover, disinformation campaigns often explicitly seek to sow doubt about unfolding events. We expect that when people believe that information on the Russian war in Ukraine is generally false or even deliberately deceptive, they may be more uncertain about the extent to which they should accept claims about the war. To resolve this undesirable state of uncertainty, they might choose to read fact-checks that offer additional information on the claims they are exposed to.

We can explain this in light of deception detection and the truth default theory (Levine 2014). According to this theory, people have a tendency to accept the honesty of information, unless they are alerted to suspicion in their environment. We expect that perceived misinformation acts as a trigger event for deviating from the truth default, signaling that the honesty of information cannot be taken at face value, and emphasizing the need for a critical outlook on potentially deceptive content. Consequently, perceiving that there is a high base rate of false information should correspond with uncertainty about the acceptance of information as true (see also Hameleers 2023). After all, in such a context, any information could be false. As a strategy to deal with the high risk perceptions related to false information, individuals who believe that misinformation prevail are more likely to select fact-checks that help them to navigate their information environment.

Against this backdrop, we hypothesize:

H2a: Individuals are more likely to select fact-checks if they believe that there is more false information in the information ecology.

Next to general beliefs related to false information about the Russian war in Ukraine, we map the perceived causes of false information. These perceived causes have previously been summarized under misinformation versus disinformation beliefs which can be understood as the perception that information is either unintentionally false (misinformation beliefs) or deliberately dishonest and deceptive (disinformation beliefs; for a conceptualization, see Hameleers, Brosius, Marquart, et al. 2021). Previous research suggests that individuals distinguish between these two false information causes in the context of the Russian war in Ukraine and that they believe that false information in this context is more likely to be caused by manipulative intent (i.e., disinformation) rather than a lack of access to conflict areas or experts (Hameleers et al. 2023). This aligns with the knowledge persuasion model which states that source motives, such as the motive to deceive, are critical for perceived accuracy of (false) claims, especially in a misinformation context where it is unclear who the source is (Amazeen and Krishna 2022; Friestad and Wright 1994). If the perceived motive of the source is to try and deceive, then individuals may be more likely to judge the claims put forward as false.

When causes of false information are seen as intentional, the crisis of untruthfulness is more severe, and a stronger need to restore uncertainty may be triggered. We therefore expect that when people are inclined to believe that false information is spread due to intentional deception, they experience a stronger need to restore certainty by selecting fact-checking messages. Hence, we hypothesize:

> H2b: Individuals are more likely to select fact-checks if they believe that false information is spread intentionally.

In addition to beliefs related to the overall information ecology, uncertainty at the statement-level may matter for motivations to read fact-checks. Following the Russian invasion of Ukraine, a number of specific claims were circulated which varied in their degree of certainty and truthfulness. Some prominent statements were false (e.g., "The U.S. is funding biological weapons research in Ukraine.") and yet others were unverifiable at the time (e.g., "Russia is committing genocide in Ukraine."). Extrapolating from previous research on uncertainty and fact-checking (Li and Wagner 2020), we expect that participants will be selective with regard to the statements they verify depending on how certain they are about the truthfulness of the respective statement. Being uncertain about the veracity of claims may be a more constructive state than being certain, especially when one is certain that a false claim is true. In line with previous literature problematizing the state of being actively misinformed (Hochschild and Einstein 2015), we view uncertainty as potentially positive because individuals who feel uncertain about claims may be more open to corrective information (Damstra et al. 2023).

Seeking out additional information in the form of a fact-check is one strategy to resolve the discomfort of not being sure about the veracity of information (Walter et al. 2021). If accuracy motivations are present, then we expect that individuals are more likely to follow this strategy in the face of uncertainty about the veracity of specific statements.

H3: Individuals are more likely to select fact-checks if they are more uncertain about a statement's veracity.

Dispositional Uncertainty. People vary in the degree to which they can tolerate uncertainty and whether they want to understand issues deeply. One interpersonal difference that is key in this regard is the need for cognition (NfC). Individuals with a higher NfC enjoy solving puzzles, thinking deeply, deliberating long, and considering issues from different angles (Cacioppo and Petty 1982). NfC has been argued to capture accuracy goals (Nir 2011) because people with a high NfC seek out both confirming and disconfirming information and process information more deeply even if it challenges their existing views. In support of this, research on news consumption found that individuals with a higher NfC are more likely to voluntarily expose themselves to news they might disagree with (Tsfati and Cappella 2005). These findings suggest that individuals with a higher NfC may be more inclined to read fact-checks because they want to learn more about different angles to a problem and they are less afraid that fact-checks might challenge their beliefs. We therefore propose:

H4: Individuals with a higher NfC are more likely to select fact-checks.

Another condition for accuracy motivations related to individual-level uncertainty is personal relevance (Matthes 2005; Weaver 1980). Uncertainty is more likely to trigger accuracy motivations when individuals feel like the issue at hand matters to them personally. Seminal literature shows that when people are highly involved in an issue, they are more likely to process information in a systematic way instead of relying on heuristics (Chaiken 1980). Crises highlight the urgency and relevance of political issues and this in turn affects people's information-seeking behaviors. In the case of the 9/11 terrorist attacks, individuals who perceived terrorist threats to be more severe relied more heavily on news media for information about the issue (Lowrey 2004). During the Covid-19 pandemic, individuals who were more concerned about the pandemic were more likely to seek out additional information from the news (Van Aelst et al. 2021). Based on these findings, we hypothesize:

H5: Individuals are more likely to select fact-checks if the issue is more relevant to them.

Cross-Country Differences

The extent to which accuracy goals and directional goals motivate citizens to read fact-checks in the context of the war might differ across countries. The impact of false information on citizens is contingent upon the media systems and political systems of their countries, which determine how widely and effectively false information is able to spread. Cross-country research shows that countries with low levels of polarization and populist communication, as well as high levels of media trust and strong public service broadcasting are conditions that protect countries against misinformation

(Humprecht et al. 2020). Western European democracies, like Austria, Belgium, Denmark and the Netherlands, display these characteristics. In a country where false information does not easily reach the public, citizens might not need the same level of accuracy motivations in order to be accurately informed as in countries with structures that offer less structural protection from false information. Countries described as being more vulnerable to disinformation are those that display higher levels of polarization, populist communication, social media news use, as well as low levels of trust. This pattern is found in polarized pluralist countries, such as Greece, Italy, Portugal and Spain. In such countries, misinformation is expected to be relatively more prevalent, which might affect the degree to which citizens seek out verifying information.

Several resilience indicators discussed in the paper by Humprecht et al. (2020), namely, ideological polarization and press freedom also seem relevant to the case of the Russian war in Ukraine. In addition, countries differ in their degree of pro-Russian stances on this topic (Hameleers et al. 2023), which might create conditions that make it more or less likely for directionally-motivated information seeking to occur among citizens. Countries also differ in many structural aspects, such as the information ecology, that might make individual-level accuracy goals more likely to occur. We therefore study three relevant country-level factors that we expect to be most likely to be related to citizens' inclination to read fact-checks in the context of the war, namely, country-level polarization, press freedom, and geographical proximity to the war areas:

RQ: What is the relationship between country-level resilience to misinformation (i.e., polarization, press freedom, and geographical proximity) and citizens' choice to read fact-checks?

Methods

Data

Data for this study come from a sample of 19,037 citizens from nineteen countries, namely Austria, Belgium, Brazil, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Netherlands, Poland, Romania, Serbia, Spain, Sweden, Switzerland, UK, and USA. The country selection was based on available resources and expertise in the respective countries at the onset of the war. That is, we selected countries where an infrastructure was in place that would facilitate a quick survey launch in order to capture citizen perceptions amidst an unfolding crisis.

Data collection was conducted from late April to early May 2022 by the international research company Kantar, which also translated the original English-language survey into the respective country languages. Median completion time was thirteen minutes and twenty four seconds, and participants received a small compensation in the form of voucher points in line with the survey company's policies. The total count of valid survey completions amounted to 19,037, with 53 percent of the participants

self-identifying as female. The average age of survey participants was 48.96 years (*SD* = 16.31).The average completion rate across all countries was 65.9 percent. Completion rates per country can be found in Supplemental Table A1.

The sampling strategy was as follows: The survey company extended invitations to their panel members through their own digital channels via digital invitations. Incentives were provided to participants, which could be accumulated and exchanged for gifts, with a value of approximately one euro per completion. The panel operates on a voluntary opt-in basis. Careful monitoring of participation statistics is conducted to ensure that panelists are not overwhelmed or engaged in multiple surveys simultaneously.

For each country sample, the survey company implemented soft quotas on gender, education, and age to ensure that the sample compositions approximated the population composition in the respective country. The quota came from the latest national census of the respective countries.Toward the conclusion of the study, these quotas were slightly relaxed to meet the desired total number of participants. The target and achieved quota per country can be found in Supplemental Table A2.

The project received ethics approval from the review board of the University of Amsterdam. The questionnaire (anonymized link: https://osf.io/pruda/?view_only=18 8fca5107ca40639936bfa810bbe5d5) as well as research questions and variables (anonymized link: https://osf.io/vkx7m?view_only=af62c3921e904e9c9f20e04bc624628f) were pre-registered on the platform of the Open Science Framework.[1]

Procedure

Participants were presented with ten statements about the Russian war in Ukraine (see Table 1), which varied in terms of whether they were true, false, or unverifiable, and whether they favored Ukraine or Russia. Participants rated each statement in terms of how certain they were that it is true or false.[2] They then answered a number of other questions about their attitudes toward the Russian war in Ukraine, and measures of NfC. At the very end of the survey, participants were informed that the ten statements had been fact-checked and they could opt to see fact-checks for any of these statements. Participants were free to select as many fact-checks as they wanted, and they received the fact-checks they selected on subsequent screens.

Measures

Table 2 displays descriptive statistics for predictive measures included in the main analyses. Unless stated otherwise, all variables at the individual level were measured on a seven-point scale (1 = completely disagree, 7 = completely agree).

Outcome Variable. The key outcome variable is a binary measure at the statement-level. It captures whether or not a fact-check was selected for a respective statement. On average, participants opted to see four out of ten fact-checks (see Table 1).

Table 1. Statements.

	Statement	Veracity	Bias	% Fact-check selected	Rating M	SD
1	The Russian attack repeatedly hit civilian targets in Ukraine.	True	Ukraine	.53	4.92	2.29
2	China has publicly condemned the Russian invasion of Ukraine.	False	Ukraine	.37	3.74	2.44
3	NATO is keeping previous agreements on which countries are allowed to join NATO.	True	Ukraine	.37	3.23	2.24
4	In Russia-occupied Crimea and in the Donbas, Ukrainians live in repression and fear.	True	Ukraine	.4	3.94	2.34
5	Russia is committing genocide in Ukraine.	Unverified	Ukraine	.48	4.61	2.37
6	Ukraine's government is antisemitic and controlled by neo-Nazis.	False	Russia	.34	4.44	2.54
7	Ukraine has repeatedly broken the ceasefire they previously agreed to.	True	Russia	.33	3.74	2.48
8	The U.S. is funding biological weapons research in Ukraine.	False	Russia	.43	3.47	2.44
9	The Ukrainian Armed Forces are supported by far-right militias.	True	Russia	.32	3.25	2.36
10	Ukraine signed a law that forbids publishing news only in Russian.	True	Russia	.31	2.82	2.3

Table 2. Descriptive Statistics.

Variable	Mean	SD	Min	Max	Obs.
Number of fact-checks selected	3.88	3.09	0	10	19,037
Statement rating	3.82	1.50	1	5	19,037
Pro-Russian bias (individual)	2.59	1.43	1	7	19,037
Prevalence of false information	3.64	1.56	1	7	19,037
Disinformation causes	5.23	1.14	1	7	19,037
Need for cognition	4.02	1.19	1	7	19,037
Personal relevance	5.17	1.28	1	7	19,037
Elite polarization left-right	16.66	7.13	5.6	31.06	18,036
Press freedom	73.63	10.12	55.36	90.27	19,037
Distance to Ukraine	2349.59	2521.49	691	11155	19,037

Statement Rating. Per statement, respondents indicated how certain they were that the statement is true or false on a five-point scale (1=very certain it's false; 5=very certain it's true).

Pro-Russian Bias (Statement). Each statement either favored the Russian or Ukrainian perspective. The direction of the bias for each statement is presented in Table 1, column "Bias." We coded this into a variable capturing pro-Russian bias (0=pro-Ukrainian bias, 1=pro-Russian bias).

Prevalence of False Information. To measure perceptions related to the prevalence of false information, we relied on the conceptualization of Hameleers, Brosius, Marquart, et al. (2021), adjusted to the context of the Russian war.[3] Respondents indicated their agreement with a total of six statements.[4] We obtained our measure by averaging across the six responses (*M*=3.64, *SD*=1.56, Cronbach's alpha=.94).

Causes of False Information. To capture causes of false information, we followed the conceptual distinction between misinformation as false information driven by a lack of expert knowledge and/or empirical evidence (Vraga and Bode 2020) and disinformation as being motivated by goal-directed deception or manipulation (e.g., Freelon and Wells 2020).

To construct perceived disinformation causes, we averaged across responses on the following four items: "False information is spread (c) due to strategic aims of political actors, (d) to disrupt the societal order, (e) to make financial gains, and (f) to hide reality from the people" (*M*=5.23, *SD*=1.14, Cronbach's alpha=.79).

Pro-Russian Bias (Individual). We measured individual-level pro-Russian bias by asking to what extent respondents agreed with four statements, two of which were supporting Russia, while the other two were supporting Ukraine. The mean pro-Russian bias was 2.59, *SD*=1.43, Cronbach's alpha=.76.

Need for Cognition. Participants indicated their agreement with five statements taken from Tsfati and Cappella (2005).[5] We obtained our measure by averaging across all items ($M = 4.02$, $SD = 1.19$, Cronbach's alpha $= .79$). Just like Tsfati and Capelle (2005), we use a drastically shortened battery of items to tap NfC. We specifically use statements that are related to the cognitive effort invested in deliberating about the quality and value of information.

Personal Relevance. To obtain our measure of personal relevance, we averaged across respondents' agreement with the following three items inspired by Hameleers, Brosius, Marquart, et al. (2021): (a) The war in Ukraine is an important global issue, (b) The war in Ukraine is an important issue for my country, and (c) The war in Ukraine is an important issue to me personally ($M = 5.28$, $SD = 1.32$, Cronbach's alpha $= .79$).

Country-Level Variables

Polarization was proxied as elite polarization as proposed by Gidron et al. (2020). This metric assesses the divergence in left-right ideology scores among political parties within each country. A higher value on this measure signifies increased ideological polarization within that country. The ideology scores themselves are derived from data provided by the Comparative Manifesto Project (Lehmann et al. 2022).[6]

Press freedom scores were obtained from the 2022 World Press Freedom Index by Reporters Without Borders. This index is constructed based on expert evaluations of factors such as pluralism, media independence, and the safety of journalists in each country. The scores on this index range from 0 to 100, with higher values indicating a greater degree of press freedom (Reporters Without Borders 2022).

To account for geographical proximity, the distance in kilometers between each country and Ukraine was determined using data from the CEPII Gravity database (Conte et al. 2022).

Analytical Strategy

The data are structured such that fact-checks are nested within individuals (i.e., each individual saw ten statements for which they could select fact-checks) and individuals are nested within countries. The outcome of interest (i.e., fact-check selection) was measured at the lowest level, namely the statement-level, while the predictors were measured at various levels. We therefore estimated mixed models for three-level hierarchical data with statements at level 1, individuals at level 2, and countries at level 3. All models are linear probability models with random intercept and fixed slope fitted using maximum likelihood estimation (see Table 3). Regression coefficients can thus be interpreted as probabilities. In the Supplemental Information file we report post-hoc power analyses and robustness checks.

Table 3. Results of Three-Level Multilevel Models Predicting the Likelihood of Selecting a Fact-Check With Statements (Level 1), Individuals (Level 2), and Countries (Level 3).

Predictor variables	(1) Individual-level predictors (H1–5)	(2) Country-level predictors (RQ1)
Statement rating:		
Very certain it's false (Ref.)	Ref.	Ref.
Somewhat certain it's false	0.042*** (0.004)	0.041*** (0.004)
Uncertain whether true or false	0.004 (0.003)	0.003 (0.003)
Somewhat certain it's true	0.064*** (0.004)	0.063*** (0.004)
Very certain it's true	0.089*** (0.004)	0.088*** (0.004)
Directional motivations		
Pro-Russian bias (statement)	−0.067*** (0.004)	−0.068*** (0.004)
Pro-Russian bias (individual)	−0.023*** (0.002)	−0.024*** (0.002)
Pro-Russian bias (statement) X Pro-Russian bias (individual)	0.001 (0.001)	0.002 (0.001)
Accuracy motivations		
Prevalence of false information	0.001 (0.002)	0.001 (0.002)
Disinformation causes	0.034*** (0.002)	0.034*** (0.002)
Need for cognition	0.012*** (0.002)	0.012*** (0.002)
Personal relevance	0.017*** (0.002)	0.017*** (0.002)
Country-level predictors		
Polarization		−0.001 (0.001)
Press freedom		−0.003** (0.001)
Geographical proximity to Ukraine		−0.000 (0.000)
N (statements × individuals)	190,370	180,036
N (countries)	19	18
ICC country	.01	.01
ICC individual within country	.33	.33
AIC	21,8458.2	20,6244.7
BIC	21,8610.6	20,6426.5

Note. Standard errors in parentheses. While there is no direct equivalent to R2 in mixed effects models, the ICC provides relevant information about variance explained. An ICC of 0 indicates that all variability is within groups, while 1 indicates that all variability is between groups. A higher ICC suggests that a larger proportion of the total variance in the dependent variable is attributable to differences between the groups specified in the random effects. ICC: Intraclass correlation coefficient; AIC: Akaike information criterion; BIC: Bayesian information criterion.
**$p < .01$. ***$p < .001$.

Results

Table 3 displays results of our regression analyses. Model 1 tests H1–5 and Model 2 tests RQ1.

Directional Motivations (H1a & H1b)

We did not find support for H1a that people are more likely to select a fact-check if they believed that the statement was false. Instead, individuals who thought that the statement was true were significantly more likely to choose to see a fact-check ($B = 0.09$, $SE = 0.004$, $p < .001$). We also did not find that reading fact-checks was promoted by an alignment between ideological beliefs and the ideological stance of the statement (H1b). While pro-Russian attitudes and pro-Russian statement bias were negatively associated with the likelihood of selecting a fact-check, the interaction effect was not significant. This means that we did not find evidence for directional motivations in fact-checking behavior.[7]

Accuracy Motivations

Uncertainty About the Information Ecology (H2a & H2b). We did not find that individuals were more likely to select fact-checks if they believed that there was more false information in the information ecology (H2a). When asked about the specific causes for false information, however, we found that individuals were more likely to select fact-checks if they thought that false information was spread deliberately (i.e., disinformation causes, $B = 0.034$, $SE = 0.002$, $p < .001$). With every one step increase in perceived disinformation causes, the likelihood of selecting a fact-check increased by 3.4 percent. Because perceived disinformation causes is measured on a seven-point scale, someone with the highest score on perceived disinformation causes has a 24 percent higher probability of selecting a fact-check than someone with the lowest score. This finding lends support to H2b.

Uncertainty About Statements (H3). We found mixed results for the hypothesis that individuals select fact-checks if they are more uncertain about the statements' veracity (H3). Individuals who were uncertain about the veracity of a statement were not more likely to select a fact-check than those who were very certain that it was false. However, those who were somewhat certain that a statement was true ($B = 0.064$, $SE = 0.004$, $p < .001$) were 6.4 percent more likely to select a fact-check than those who were very certain that it was false and those who were somewhat certain that a statement was false ($B = 0.042$, $SE = 0.003$, $p < .001$) were 4.2 percent more likely to select a fact-check. Those who were very certain that a statement was true were 8.9 percent more likely to select a fact-check than those who were very certain that it was false ($B = 0.089$, $SE = 0.004$, $p < .001$). While we did not expect to find this, this result does suggest that people are willing to challenge their existing beliefs, especially if they are very certain that they got it right.

Need for Cognition (H4) and Personal Relevance (H5). In line with H4, we found that people with a higher NfC were 1.2 percent more likely to select fact-checks ($B = 0.012$, $SE = 0.002$, $p < .001$), meaning that those with the highest NfC were 8 percent more likely to select a fact-check than those with the lowest NfC. In line with H5, we found

that people were 1.7 percent more likely to select a fact-check if the issue was more important to them ($B = 0.017$, $SE = 0.002$, $p < .001$). Those who experienced the problem as most important were 12 percent more likely to select a fact-check than those who thought it was least important.

Country-Level Predictors (RQ1)

Finally, we tested to what extent country-level variables were associated with citizens' choice to read fact-checks (Model 2). While polarization and geographical proximity did not emerge as significant, we do observe a very small, negative and significant association between press freedom and the decision to choose a fact-check ($B = -0.003$, $SE = 0.001$, $p = .008$). In our data, press freedom ranges from fifty five in Greece to ninety in Denmark, which means that citizens living in Greece are about 11 percent more likely to read fact-checks than citizens living in Denmark, because of their country-level differences in press freedom.

Discussion

This study set out to investigate directional motivations and accuracy motivations in the selection of fact-checks about the Russian war in Ukraine. Our cross-country results show a clear pattern where accuracy motivations trump directional motivations. Specifically, we do not find evidence for directional motivations seeing that individuals are not more likely to read fact-checks when they think that the claim they check is false (affirming fact-checking). Alignment between their own ideological stance and the ideological bias of the statement also did not affect inclinations to read fact-checks in the direction that would point to directional goals. Instead, accuracy motivations seem to play a relatively larger role seeing that individuals are more likely to read fact-checks when they experience more uncertainty about information related to the war, when they have a higher need to understand issues deeply and when the issue at hand is more relevant to them personally.

These findings are in line with seminal research on the need for orientation, which highlights the importance of uncertainty and issue relevance for drawing individuals toward reliable information (Matthes 2005; Weaver 1980). When individuals experience unfamiliar and uncertain circumstances that are also highly relevant to their lives, they show a stronger tendency to turn to the news media for clarity and guidance. Similar to previous crises, like the Covid-19 pandemic (Van Aelst et al. 2021), the Russian war in Ukraine has likely triggered uncertainty among many citizens at a time when being accurately informed about the crisis situation was paramount. Especially in the early weeks after the Russian invasion of Ukraine, which is the timeframe of this study, events in the crisis area were quickly unfolding, threatening to further escalate, or spread across country borders. These circumstances have likely triggered various emotions among citizens, which may impact information processing. While reliance on emotions in information processing has been linked to misperceptions in the context of the Covid-19 pandemic and the 2020 U.S. presidential elections (Young et al.

2022), our findings show a different picture. In the context of the Russian war in Ukraine, high levels of uncertainty appear to have triggered an increased need for orientation, which individuals were able to satisfy (at least partly) by reading fact-checks about the war. In line with our expectation that fact-checks can reduce uncertainty, we found that individuals in our study were more drawn to fact-checks if they thought that false information about the war was due to deliberate deception. They also read fact-checks if they displayed a higher NfC and if the issue was more relevant to them personally. All of these findings are indicative of accuracy goals because individuals seem to read fact-checks in an attempt to reduce uncertainty, rather for the purpose of confirming existing beliefs. Citizens seem to reach for fact-checks in order to learn more about the truth (informing fact-checking), even when the fact-checks might cast doubt on what they currently believe to be true. Fact-check articles tend to focus on false statements rather than true statements (Lee et al. 2023), like Politifact, which concludes in 89 percent of their fact-check articles that the claim contained at least some degree of falsehood. We expect that citizens know this intuitively. If they choose to read a fact-check, then there is a high chance that the fact-check will conclude that the statement is false. If citizens think a statement is true, and they choose to read a fact-check that they expect to conclude that the statement is false, then they are not affirming knowledge, but they are willing to challenge their existing beliefs for the sake of greater accuracy. We find that this is the case in the context of the Russian invasion of Ukraine.

Hence, although extant literature has assumed that people may be more vulnerable to false information when their prior beliefs align with deceptive information, our findings indicate that in an unfolding global crisis, a lack of accuracy motivations may make people more vulnerable to false information. In line with this, an important implication of our study is the need to enhance critical thinking and media literacy skills that can trigger more certainty about verification tasks and instill a stronger motivation to verify.

Our study extends existing research in a number of ways. First, very few studies have compared the different motivations—accuracy versus directional motivations—in the selection of fact-checking information. A notable exception is a two-study paper by Walter et al. (2021) which focused on motivations to verify partisan statements in the context of the U.S. While they did not find strong support for the influence of accuracy motivations on intentions to fact-check, they showed that directional motivations were indirectly related to fact-checking intentions. The findings of our study diverge from this pattern and highlight the importance of cross-country and cross-topic research. Our study provided a cross-country comparison on a topic that was less clearly divided along partisan lines, but of high and immediate relevance to many citizens. Under these conditions it seems that accuracy motivations are more likely to drive people toward reading fact-checks, and this is a pattern we observe across countries.

A relevant country-level difference we found is the relationship between press freedom and motivations to read fact-checks: These motivations were most pronounced under conditions of lower press freedom (i.e., in Greece). We interpret this as a

corrective response from individuals to the higher uncertainty they encounter in the trustworthiness of information. Countries with lower levels of press freedom are more vulnerable to misinformation (Humprecht et al. 2020), which should correspond to a stronger incentive for citizens to read fact-checks about the information they receive. This also corresponds with Amazeen's (2020) conceptualization of fact-checking as a democracy-building tool that especially emerges in the face of threats to democratic institutions—of which low press freedom is a salient threat.

It is worth noting that our country selection is bound to have implications for the generalizability of our findings. In terms of strengths, the country contexts included in this study vary in key macro-level characteristics and allow us to study how country-level differences, such as press freedom, relate to the individual-level behavior of reading fact-checks. We overall find that country-level differences are less predictive of motivations to read fact-checks, than individual level predictors. That said, the included countries are all democratic and industrialized, and mostly European (with the exception of Brazil and the United States). Only one of the countries, namely Serbia, is clearly pro-Russian. It is therefore not entirely clear to what extent our results would generalize to countries beyond the West and in particular to those that are allied with Russia. In line with our focus on conditions and contexts in this study, a future direction for similar research is to focus not on *if*, but *when* accuracy motivations or directional motivations are relatively more important, depending on differences between countries of a wider global selection.

Like all studies, this study is not free of limitations. The data were collected as part of a survey, which raises questions about ecological validity. In the real world, when people scroll through their news feeds, they come across an abundance of information from different sources. In our study we mimicked a news feed such that we presented all ten statements on one screen and allowed the individuals to choose which information they wanted to engage with further. However, the amount of information they had to process was limited and stripped off of any other cues, like information on sources, which was shown to be an important factor in judging credibility (Amazeen and Krishna 2022) or markers of engagement (e.g., number of likes or shares). While it is conceivable that a more realistic study design or a field study would attenuate the effect magnitudes, it is not immediately clear that it would also change the pattern of results.

A second limitation may be related to social desirability. The choice to select fact-checks may have been affected by respondents' desire to present themselves as knowledgeable and interested citizens, and they might have censored their attitudes toward the war. Anticipating this, we minimized social desirability in a number of ways: We carefully phrased the survey questions such that they reflected both pro-Russian and pro-Ukrainian perspectives (see Methods section). We also highlighted at several points in the survey that people may have different opinions on the issue, and that "there are not right or wrong answers" in the statement ratings and that a "best guess is as good as the 'right' answer." In line with this, we see in our measure of attitudes toward the war that respondents have made use of the full range of answer options, and that the dispersion of this measure is comparable to that of other, non-sensitive measures in the survey.

Third, recent studies suggest that priming people to think about the accuracy of statements reduces their likelihood to share false information (Pennycook and Rand 2022). In our study, we asked respondents to rate the veracity of statements, which may have primed accuracy goals, which in turn encouraged them to choose to read fact-checks. Because we use observational data we are unable to account for this possibility. Future research could test this in an experimental design which is able to counterbalance this.

Another limitation is that we rely on self-reported and indirect measures of motivated reasoning processes. Especially, accuracy motivations are hard to observe and we therefore relied on a number of proxies. Although our measures are theoretically grounded and we believe we have tapped the difference between accuracy and directional motivations, it may be impossible to measure (partially subconscious) processing mechanisms in a survey. Future research may draw on more observational or unobtrusive measures to map motivations beyond direct awareness.

Despite the above limitations, our study makes important contributions to the literature. First, our study is based on a unique cross-country dataset that was collected at a critical time, namely a few weeks after the Russian invasion of Ukraine. These data allow us to understand how citizens across countries were dealing with the uncertainty of an unfolding crisis situation. We find that fact-checking information is one strategy that citizens use to reduce uncertainty in times of increased disinformation. Most importantly, with respect to societal relevance, we find that fact-checks can serve to challenge existing beliefs, give citizens an opportunity to distinguish between what is true or false information, and ultimately help them come closer to the factual truth.

ORCID iDs

Marina Tulin ![iD](https://orcid.org/0000-0002-6676-7816)
Michael Hameleers ![iD](https://orcid.org/0000-0002-8038-5005)

Patrick Van Erkel 🆔 https://orcid.org/0000-0002-9235-7706

Luisa Gehle 🆔 https://orcid.org/0000-0001-5475-106X

David Nicolas Hopmann 🆔 https://orcid.org/0000-0003-1089-0193

Karolina Koc-Michalska 🆔 https://orcid.org/0000-0002-5354-5616

Vaclav Stetka 🆔 https://orcid.org/0000-0001-8381-3645

Yannis Theocharis 🆔 https://orcid.org/0000-0001-7209-9669

Supplemental Material

Notes

1. A total of five studies were pre-registered for the larger project and due to time constraints at the time of data collection, we had not fully developed the hypotheses of all pre-registered studies. In the case of this study (Study 3 in the pre-registration), we had raised only broad research questions, while we now raise and test specific hypotheses as a consequence of further developing the theoretical framework. Other deviations from the pre-registration are due to manuscript revisions in light of reviewer comments.

2. Our statement selection contains six true and four false or unverified statements. We prioritized mimicking the prevailing information landscape during data collection, acknowledging that true information is more prevalent than false information (Acerbi et al. 2022). This approach was essential for both the validity of our findings and ethical considerations, avoiding the creation of false statements that could contribute to misinformation. While initially aiming for a 6:4 ratio of true to false statements, a shift occurred with the statement about "Russia committing genocide in Ukraine" becoming unverified due to recent events. Additionally, our study aimed to present an equal number of statements representing pro-Russian and pro-Ukrainian perspectives, successfully achieving this balance for robust testing of directional motivations on both sides of the conflict, as demonstrated in Table 1.

3. This question was prefaced with the following text: "Now, we would like to ask you a few questions about the information you have come across about the war in Ukraine. Here, we refer to information in the broadest sense, like information coming from mainstream media, social media, or official sources of information. There are no right or wrong answers. Please give us your best guess, even if you are not sure.

   Could you indicate your agreement with the following statements on a scale from 1 (completely disagree) to 7 (completely agree)?

   Information on the war in Ukraine is.."

4. The six statements read "Information on the war in Ukraine is.. (a) mostly inaccurate, (b) not based on relevant expert knowledge, (c) not based on objective facts, (d) deliberately false, (e) based on lies, and (f) manipulated to deceive the public."

5. The selected items were:
   1. I would prefer complex to simple problems
   2. I usually end up deliberating about issues even when they do not affect me personally
   3. I really enjoy a task that involves coming up with new solutions to problems
   4. I prefer my life to be filled with puzzles that I must solve
   5. I find satisfaction in deliberating long and hard for hours

6. Because this information is not available for Brazil in the Comparative Manifesto Project, Brazil was not considered in the final model in Table 3.
7. As a robustness check, we also constructed a variable capturing the congruence between individual ideological beliefs and the ideological bias of the statement (1=low congruence; 7=high congruence). Entering this variable also showed no evidence for directional motivations. Instead, higher congruence made fact-check selection more likely ($B=0.01$, $SE=0.001$, $p<.001$). This significant association disappeared when controlling for pro-Russian attitudes and pro-Russian statement bias. Like the main analyses, the robustness check shows that there is no evidence for directional motivations.

References

Acerbi, A., Altay, S., & Mercier, H. (2022). Research Note: Fighting Misinformation or Fighting for Information?

Amazeen, M. A. 2020. "Journalistic Interventions: The Structural Factors Affecting the Global Emergence of Fact-Checking." *Journalism* 21(1):95–111. doi:10.1177/1464884917730217.

Amazeen, M. A., & Krishna, A. (2022). Processing Vaccine Misinformation: Recall and Effects of Source Type on Claim Accuracy via Perceived Motivations and Credibility. *International Journal of Communication*, 17: 23.

Amazeen, M. A., C. J. Vargo, and T. Hopp. 2019. "Reinforcing Attitudes in a Gatewatching News Era: Individual-Level Antecedents to Sharing Fact-Checks on Social Media." *Communication Monographs* 86(1):112–32. doi:10.1080/03637751.2018.1521984.

Conte, M. and P. Cotterlaz and T. Mayer (2022), "The CEPII Gravity Database". CEPII Working Paper No: 2022-05, July 2022.

Berger, C., and K. Kellermann. 1994. "Acquiring Social Information." In *Strategic Interpersonal Communication*, eds. J. A. Daly, and J. M. Wiemann. New York: Routledge.

Brashers, D. E. (2001). Communication and Uncertainty Management. *Journal of communication*, 51(3), 477–497.

Cacioppo, J. T., and R. E. Petty. 1982. "The Need for Cognition." *Journal of Personality and Social Psychology* 42(1):116–31.

Chaiken, S. 1980. "Heuristic Versus Systematic Information Processing and the Use of Source Versus Message Cues in Persuasion." *Journal of Personality and Social Psychology* 39(5):752–66.

Damstra, A., R. Vliegenthart, H. Boomgaarden, K. Glüer, E. Lindgren, J. Strömbäck, and Y. Tsfati. 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. doi:10.1177/19401612211031457.

Edgerly, S., R. R. Mourão, E. Thorson, and S. M. Tham. 2020. "When Do Audiences Verify? How Perceptions About Message and Source Influence Audience Verification of News Headlines." *Journalism & Mass Communication Quarterly* 97(1):52–71. doi:10.1177/1077699019864680.

Freelon, D., & Wells, C. (2020). Disinformation as Political Communication. *Political communication*, 37(2), 145–156.

Friestad, M., and P. Wright. 1994. "The Persuasion Knowledge Model: How People Cope with Persuasion Attempts." *Journal of Consumer Research* 21(1):1–31. doi:10.1086/209380.

Gidron, N., Adams, J., & Horne, W. (2020). *American affective polarization in comparative perspective*. Cambridge University Press.

Graves, L., and M. A. Amazeen. 2019. *Fact-checking as idea and practice in journalism*. Oxford research encyclopedia of communication. https://oxfordre.com/communication/abstract/10.1093/acrefore/9780190228613.001.0001/acrefore-9780190228613-e-808

Hameleers, M. 2023. This is Clearly Fake! Mis- and Disinformation Beliefs and the (Accurate) Recognition of Pseudo-Information—Evidence From the United States and the Netherlands. *American Behavioral Scientist*. Published online May 18. doi: 10.1177/00027642231174334.

Hameleers, M., A. Brosius, and C. H. de Vreese. 2021. "Where's the Fake News At? European News Consumers' Perceptions of Misinformation Across Information Sources and Topics." *Harvard Kennedy School Misinformation Review*. https://doi.org/10.37016/mr-2020-70

Hameleers, M., A. Brosius, F. Marquart, A. C. Goldberg, E. van Elsas, and C. H. de Vreese. 2021. "Mistake or Manipulation? Conceptualizing Perceived Mis- and Disinformation among News Consumers in 10 European Countries." *Communication Research* 49(7):919–41. doi:10.1177/0093650221997719.

Hameleers, M., M. Tulin, C. H. de Vreese, T. Aalberg, P. Van Aelst, A. S. Cardenal, N. Corbu, P. van Erkel, F. Esser, L. Gehle, D. Halagiera, D. N. Hopmann, K. Koc-Michalska, J. Matthes, C. Melzer, S. Mihelj, C. Schemer, T. Sheafer, S. Splendore, J. Stanyr, A. Stepinska, V. Stetka, J. Strömbäck, L. Terren, Y. Theocharis, and A. Zoizner. 2023. "Mistakenly Misinformed or Intentionally Deceived? Mis- and Disinformation Perceptions on the Russian War in Ukraine Among Citizens in 19 Countries." *European Journal of Political Research*. Published online December 12. doi:10.1111/1475-6765.12646.

Hameleers, M., and T. G. L. A. van der Meer. 2020. "Misinformation and Polarization in a High-Choice Media Environment: How Effective Are Political Fact-Checkers?" *Communication Research* 47(2):227–50. doi:10.1177/0093650218819671.

Hochschild, J. L., and K. L. Einstein. 2015. "Do Facts Matter? Information and Misinformation in American Politics." *Political Science Quarterly* 130(4):585–624. doi:10.1002/polq.12398.

Humprecht, E., F. Esser, and P. Van Aelst. 2020. "Resilience to Online Disinformation: A Framework for Cross-National Comparative Research." *The International Journal of Press/Politics* 25(3):493–516. doi:10.1177/1940161219900126.

Jerit, J., and Y. Zhao. 2020. "Political Misinformation." *Annual Review of Political Science* 23(1):77–94. doi:10.1146/annurev-polisci-050718-032814.

Kunda, Z. 1990. "The Case for Motivated Reasoning." *Psychological Bulletin* 108(3):480–98.

Lee, S., A. Xiong, H. Seo, and D. Lee. 2023. "'Fact-checking' Fact Checkers: A Data-Driven Approach." *Harvard Kennedy School Misinformation Review*. https://doi.org/10.37016/mr-2020-126

Levine, T. R. 2014. "Truth-Default Theory (TDT): A Theory of Human Deception and Deception Detection." *Journal of Language and Social Psychology* 33(4):378–92. doi:10.1177/0261927x14535916.

Li, J., and M. W. Wagner. 2020. "The Value of Not Knowing: Partisan Cue-Taking and Belief Updating of the Uninformed, the Ambiguous, and the Misinformed." *Journal of Communication* 70(5):646–69. doi:10.1093/joc/jqaa022.

Lowrey, W. 2004. "Media Dependency During a Large-Scale Social Disruption: The Case of September 11." *Mass Communication and Society* 7(3):339–57. doi:10.1207/s15327825mcs0703_5.

Matthes, J. 2005. "The Need for Orientation Towards News Media: Revising and Validating a Classic Concept." *International Journal of Public Opinion Research* 18(4):422–44. doi:10.1093/ijpor/edh118.

Nir, L. 2011. "Motivated Reasoning and Public Opinion Perception." *Public Opinion Quarterly* 75(3):504–32. doi:10.1093/poq/nfq076.

Pennycook, G., and D. G. Rand. 2022. "Accuracy Prompts are a Replicable and Generalizable Approach for Reducing the Spread of Misinformation." *Nature Communications* 13(1): 1–12. doi:10.1038/s41467-022-30073-5.

Reporters Without Borders (2022). World Press Freedom Index 2022, available at https://rsf. org/en/index [accessed 21 October 2022].

Robertson, C. T., R. R. Mourão, and E. Thorson. 2020. "Who Uses Fact-Checking Sites? The Impact of Demographics, Political Antecedents, and Media Use on Fact-Checking Site Awareness, Attitudes, and Behavior." *The International Journal of Press/Politics* 25(2):217–37. doi:10.1177/1940161219898055.

Shin, J., and K. Thorson. 2017. "Partisan Selective Sharing: The Biased Diffusion of Fact-Checking Messages on Social Media: Sharing Fact-Checking Messages on Social Media." *Journal of Communication* 67(2):233–55. doi:10.1111/jcom.12284.

Suárez, E. 2022. "Cutting Through the Fog of War: How Fact-Checkers From 70 Countries are Fighting Misinformation on Ukraine." *Reuters Institue*. https://reutersinstitute.politics. ox.ac.uk/news/cutting-through-fog-war-how-fact-checkers-70-countries-are-fighting-mis-information-ukraine

Taber, C. S., and M. Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs." *American Journal of Political Science* 50(3):755–69. doi:10.1111/j.1540-5907.2006. 00214.x.

Thorson, E. 2016. "Belief Echoes: The Persistent Effects of Corrected Misinformation." *Political Communication* 33(3):460–80. doi:10.1080/10584609.2015.1102187.

Tsfati, Y., and J. N. Cappella. 2005. "Why Do People Watch News They Do Not Trust? The Need for Cognition as a Moderator in the Association Between News Media Skepticism and Exposure." *Media Psychology* 7(3):251–71. doi:10.1207/S1532785XMEP0703_2.

Van Aelst, P., F. Toth, L. Castro, V. Štětka, C. de Vreese, T. Aalberg, A. S. Cardenal, N. Corbu, F. Esser, D. N. Hopmann, K. Koc-Michalska, J. Matthes, C. Schemer, T. Sheafer, S. Splendore, J. Stanyer, A. Stępińska, J. Strömbäck, and Y. Theocharis. 2021. "Does a Crisis Change News Habits? A Comparative Study of the Effects of COVID-19 on News Media Use in 17 European Countries." *Digital Journalism* 9(9):1208–38. doi:10.1080/21670811 .2021.1943481.

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.

Walter, N., S. Edgerly, and C. Saucier (2021). "'Trust, Then Verify': When and Why People Fact-Check Partisan Information." *International Journal of Communication* 15:4734–54.

Walter, N., and R. Tukachinsky. 2020. "A Meta-Analytic Examination of the Continued Influence of Misinformation in the Face of Correction: How Powerful Is It, Why Does It Happen, and How to Stop It?" *Communication Research* 47(2):155–77. doi:10.1177/009365021985 4600.

Weaver, D. H. 1980. "Audience Need for Orientation and Media Effects." *Communication Research* 7(3):361–73. doi:10.1177/009365028000700305.

Weeks, B. E. 2015. "Emotions, Partisanship, and Misperceptions: How Anger and Anxiety Moderate the Effect of Partisan Bias on Susceptibility to Political Misinformation: Emotions and Misperceptions." *Journal of Communication* 65(4):699–719. doi:10.1111/jcom. 12164.

Young, D. G., K. H. Jamieson, S. Poulsen, and A. Goldring. 2018. "Fact-Checking Effectiveness as a Function of Format and Tone: Evaluating FactCheck.org and FlackCheck.org." *Journalism & Mass Communication Quarterly* 95(1):49–75. doi:10.1177/1077699017710453.

Young, D. G., E. K. Maloney, A. Bleakley, and J. Langbaum. 2022. "'I feel it in my gut:' Epistemic Motivations, Political Beliefs, and Misperceptions of COVID-19 and the 2020 U.S. Presidential Election." *Journal of Social and Political Psychology* 10:643–56. doi:10.5964/jspp.7823.

Author Biographies

Marina Tulin is an Assistant Professor of Political Communication at the University of Amsterdam. Her research focuses on disinformation, fact checking, media literacy and public trust in the news media.

Michael Hameleers is an Associate professor in Misinformation and Disinformation Studies at the Amsterdam School of Communication Research. His research interests include disinformation, misinformation, and the meaning of trust and distrust in times of epistemic polarization and concerns about misinformation and disinformation.

Claes de Vreese is Professor of AI & Society with a special emphasis on media and democracy, University of Amsterdam. He is also the Director of the Digital Democracy Center at SDU.

Toril Aalberg is Professor the Department of Sociology and Political Science, at the Norwegian University of Science and Technology, Norway. Her research focuses on political communication, election campaigns, media effects and public opinion.

Nicoleta Corbu is Professor of political communication at the National University of Political Studies and Public Administration (SNSPA), Bucharest, Romania. Her research focuses on political communication, media effects, and (mis-/dis)information.

Patrick van Erkel is an Assistant Professor of political communication at the University of Amsterdam. His research focuses on political communication and public opinion formation, particularly looking at polarization and mis- and disinformation.

Frank Esser is Professor of International & Comparative Media Research at the University of Zurich. He publishes in the areas of international comparative political communication research, mediatization of politics, mediated populism, and strengthening resilience against misinformation.

Luisa Gehle is a Researcher and PhD student at the Department of Communication at the University of Mainz, Germany. Her research is focused on political communication and psychology, where she is especially interested in the use and effects of political (mis-/dis)information.

Denis Halagiera is a PhD student in the Communication and Media Science Program at Adam Mickiewicz University, Poznań, Poland. His research interests include media use and disinformation.

David Nicolas Hopmann is Professor of Political Communication at the University of Southern Denmark. In his research he focuses on political news coverage and its effects on citizens.

Karolina Koc-Michalska is Professor at Audencia Business School and Affiliated Researcher at CEVIPOF Sciences Po Paris, France, and University of Silesia, Poland.Her work focuses on the strategies of political actors in the online environment and citizens' political engagement.

Jörg Matthes is Professor of Communication at the University of Vienna, Austria. His research focuses on digital media effects and advertising.

Sabina Mihelj is a Professor of Media and Cultural Analysis at the Centre for Research in Communication and Culture, Loughborough University. Her research focuses on the comparative study of media cultures across both traditional and new media, with a focus on nationalism, identity, memory, and Eastern and Central Europe.

Christian Schemer is Professor for Communication at the Johannes Gutenberg University of Mainz, Germany. His research focuses on political communication and media effects.

Vaclav Stetka is Reader in Comparative Political Communication at the Department of Communication and Media, Loughborough University, where he is also Director of Research and Impact. His work focuses on political communication, cultural polarization, and the relationship between media and illiberalism.

Jesper Strömbäck is Professor in Journalism and Political Communication at the Department of Journalism, Media and Communication, University of Gothenburg, Sweden. His research focuses on political communication, political news journalism and media effects.

Ludovic Terren is a political communication researcher at the Department of Political Science of the University of Antwerp. His work primarily focuses on the democratic implications of digital media and changing news consumption patterns. He currently mainly works on resilience to mis- and disinformation.

Yannis Theocharis is Professor and Chair of Digital Governance at the Department of Governance, Technical University of Munich, where he is also a member of the Munich Data Science Institute. His work focuses on political behaviour, political communication, toxic speech and computational social science.