International Journal of Communication 20(2026), 588-613 1932–8036/20260005

Biased Judgment or Lack of Skill? The Role of News Consumption in (Mis)Information Identification in the Context of Russia's War Against Ukraine

LUISA GEHLE
CHRISTIAN SCHEMER
Johannes Gutenberg University Mainz, Germany

MARINA TULIN
MICHAEL HAMELEERS
University of Amsterdam, The Netherlands

This study examines how media consumption shapes individuals' ability to distinguish true from false information and their response biases in the context of Russia's invasion of Ukraine. Drawing on signal detection theory, it analyzes sensitivity (the ability to discern truth from falsehood) and absolute response bias (the strength of the tendency to accept or reject claims) separately. Data come from a survey conducted in 19 European and American countries (N = 19,037) in 2022 during Russia's full-scale war against Ukraine. Reliance on newspapers is linked to higher sensitivity for both pro- and anti-Russia statements, whereas television news shows no such effect. Social media use is unrelated to sensitivity, but corresponds with more balanced evaluations, while messenger-based news consumption predicts lower sensitivity and stronger biases. In some cases, alternative media use is also associated with increased response bias. Cross-national comparisons show that press freedom is linked to higher sensitivity to pro-Russia claims and to asymmetric response biases for pro- and anti-Russia frames, consistent with dominant media narratives.

Keywords: misinformation, news use, truth discernment, signal detection theory

Citizens across the globe are increasingly confronted with complex and contested information environments (Van Aelst et al., 2017). Especially in politically charged contexts such as the Russian invasion of Ukraine, disinformation campaigns blur the lines between fact and fiction (Allen et al., 2024). These

Luisa Gehle: gehle@uni-mainz.de
Christian Schemer: schemer@uni-mainz.de
Marina Tulin: m.tulin@uva.nl
Michael Hameleers: m.hameleers@uva.nl
Date submitted: 2025-04-05

developments have raised concerns not only about citizens being uninformed but also about their growing confidence in misinformation (Kuklinski et al., 2000; Rojecki & Meraz, 2016).

One central goal of research is to understand citizens' susceptibility to misinformation (Nyhan, 2020). Many studies use surveys in which respondents evaluate the truthfulness of statements, but common measures, such as counting correct answers, conflate different evaluation tendencies. Two people may score identically while differing profoundly in how they judge truth: One may systematically believe everything, the other disbelieve everything. To address this, we build on a signal detection theory (SDT) framework, which distinguishes between sensitivity (the ability to separate truth from falsehood) and response bias (the tendency to judge all information as true or false regardless of content; Batailler et al., 2022; Higham et al., 2024; Pfänder & Altay, 2025).

The aim is not to revisit this framework, but to apply it to examine how susceptibility to disinformation is shaped by media use and media system quality. Previous studies have often focused only on detecting false information (Pereira et al., 2023). Ideally, high-quality media consumption equips users to discern true from false claims and helps balance tendencies to over- or underestimate the prevalence of true information. Drawing on cross-sectional survey data from 19 countries, we analyze how media environments relate to individuals' ability to discern truth from falsehood and their general bias toward accepting or rejecting information as true. We explore both individual-level factors (news consumption) and country-level indicators (press freedom), emphasizing how media exposure may not only inform but also bias users' truth judgments. By separating sensitivity and bias, the analysis provides a more nuanced picture of the psychological and structural factors that shape misinformation vulnerability across diverse media systems.

Measuring Susceptibility to Mis- and Disinformation

Misinformation refers to information that is inaccurate based on relevant empirical evidence (Vraga & Bode, 2020). Disinformation is similarly inaccurate but is shared with the intention to deceive. The distinction therefore hinges on intent, meaning the same statement can be classified as misinformation when shared unknowingly or as disinformation when shared deliberately (Hameleers, 2023). Because intent cannot be determined from the statements alone, we use *misinformation* as an umbrella term encompassing both phenomena. Hence, while the analysis focuses on false statements favorable to one party in the war in Ukraine (i.e., pro-Russia or counter-Russia statements), some actors may share such statements unknowingly, with the intention to inform, whereas others may do so deliberately to deceive. Therefore, the statements we analyze in this study can occur as either misinformation or disinformation, depending on the context in which they are presented.

Misinformation is particularly salient in the context of post-truth politics and factual relativism. In such settings, empirical facts increasingly become subject to partisan reinterpretation and are often dismissed as mere opinions (Van Aelst et al., 2017; Waisbord, 2018). Such contexts make it difficult for citizens to discern true from false information. Previous research has identified numerous predictors for why people believe misinformation. Although these factors are not always clearly distinguishable, some relate

https://doi.org/10.65476/9fwxp210

more strongly to accuracy motivation or knowledge (Pennycook & Rand, 2019), whereas others reflect directional motives or biased belief systems (Roozenbeek et al., 2022).

A common approach to measuring susceptibility to misinformation is to count correctly identified false claims or to average belief ratings across false statements (e.g., Pereira et al., 2023; Roozenbeek et al., 2020). A shortcoming of this approach is that it only considers the identification of false information and disregards true information. Focusing solely on false information overlooks that individuals may also doubt true information. An individual's ability to identify false information can indicate resilience to misinformation; however, this resilience is limited if the same individual also rejects true information. To account for this response bias, belief in true statements has been used as a control measure (Zimmermann & Kohring, 2020).

Many effect studies rely on the mean difference in credibility across misinformation and true information to assess whether misinformation is considered less credible than true information (e.g., Schaewitz et al., 2020). This approach has also been used in the investigation of pro-Kremlin disinformation. Ukrainians who hold conservative views and trust partisan media are more susceptible to Russian propaganda, while those with more trust in mainstream media are less susceptible (Erlich & Garner, 2023).

Equally weighing the evaluation of true and false items is a more appropriate approach than just counting how often individuals spot false information (Allcott & Grentzkow, 2017; Roozenbeek et al., 2022). It adequately measures the ability to discern true from false information. However, this approach is not suitable for assessing biased response patterns, as illustrated by the following example: In the context of the Russian invasion of Ukraine, someone may be well-informed on the war and discern true and false information rather well. At the same time, such individuals may tend to rate most statements as true—either because of general gullibility or, if this occurs primarily for pro- or anti-Russia statements, because they disproportionately believe information aligned with their views. By integrating separate measures of bias and discrimination ability, SDT disentangles response tendencies that are otherwise confounded in traditional measures.

Sensitivity refers to the ability to distinguish between two conditions, such as true and false information, by assessing how differently each is evaluated. Response bias, on the other hand, captures the tendency to favor one answer regardless of veracity. When used in the detection of misinformation, SDT-based measures have been shown to allow for a more nuanced picture of susceptibility and its predictors compared with traditional approaches (Batailler et al., 2022; Gawronski et al., 2023; Pennycook & Rand, 2021). Furthermore, SDT can inform interventions to address bias, sensitivity, or both (e.g., Gawronski et al., 2023).

A reanalysis using SDT measures found that inoculation games did not, contrary to earlier conclusions, increase resilience to misinformation. The games did not affect sensitivity but instead shifted participants' criterion toward a preference for choosing the "disinformation" response (response bias). This finding explains the lower average belief in fake news (Modirrousta-Galian & Higham, 2023). This example illustrates the value of using SDT to examine discernment and response bias as separate components of misinformation susceptibility.

https://doi.org/10.65476/9fwxp210

Media Use and the Identification of (Mis)Information

A plethora of research has examined the causes of belief in misinformation (for an overview, see Nyhan, 2020; Pennycook & Rand, 2021). Central to this discussion is the role of the media, which not only serve as a primary source of political information for citizens but can also contribute to the formation of misperceptions by facilitating the dissemination of misinformation: two interrelated processes that shape political knowledge and beliefs. Amid growing media fragmentation and expanding information choices (Van Aelst et al., 2017), the quality of the sources individuals rely on has become crucial for developing a well-rounded understanding of political issues. This enables them to effectively identify true information and resist false or misleading claims. Traditional news outlets foster learning more effectively because the information they publish undergoes journalistic quality control and is presented in an accessible manner (Robinson & Davis, 1990). In addition, these outlets are involved in fact-checking or frequently publish fact checks in response to unreliable information (Cushion et al., 2022). Traditional journalistic routines and role perceptions emphasize balance, comprehensiveness, and factual coverage, which contrasts with sensationalist or hyper-partisan formats that place less emphasis on accuracy. Previous research has also demonstrated that the use of traditional news increased political knowledge and reduced misperceptions (Fraile & Iyengar, 2014). Accordingly, we hypothesize the following:

H1: The more individuals consume information from traditional news outlets (e.g., TV, newspapers), the more sensitive they are (i.e., better able to discern true from false statements).

H1b: The more individuals consume information from traditional news outlets (e.g., TV, newspapers), the less pronounced their response bias is.

Other outlets convey reliable news less consistently and provide more dubious or misleading information. This applies to information channels with lower editorial control and a higher prevalence of unfiltered information from partisan authors such as social networking sites (Schäfer, 2020). Although high-quality news providers also publish content on these platforms, previous research shows that acquiring political knowledge through them is less effective (van Erkel & Van Aelst, 2020), one reason being a relatively higher prevalence of misinformation and conspiratorial content on social network sites (Bessi et al., 2016; Rojecki & Meraz, 2016; Vosoughi et al., 2018), and frequent exposure to such news leads to the acquisition of misperceptions (Garrett et al., 2016; Vliegenthart et al., 2024). However, there is evidence of a more complex role of social media in political (mis)information, showing its risks highly depend on individual factors such as conspiratory thinking, and it can also be a source of knowledge for some (Altay et al., 2025). We therefore ask the following research question:

RQ1: How is exposure to social media associated with (a) sensitivity and (b) strength of response bias?

Besides social media platforms, messaging services such as WhatsApp and Telegram have also become sources of political content. Offering a channel outside the mainstream media environment, these services have served as vehicles for propaganda, conspiracy theories, and disinformation. For example, Telegram played a role during the 2021 storming of the U.S. Capitol and in spreading conspiracy theories about the COVID-19 pandemic as well as Russian propaganda (Dogruel et al., 2023; Willeke, 2024). While

https://doi.org/10.65476/9fwxp210

there has been some evidence that individuals can acquire knowledge from social media, the overall effects seem to be more negative (Gil de Zúñiga & Goyanes, 2023; Yamamoto et al., 2018). Given the higher prevalence of misinformation and the limited availability of comprehensible, contextualized information to counter it on social media and messaging platforms, the following hypothesis is proposed:

H3: More frequent exposure to news from messaging services is associated with (a) lower sensitivity and (b) stronger response bias.

Lastly, there is evidence that consuming hyper-partisan alternative media may be related to holding misbeliefs (Shaughnessy et al., 2024). These media may cultivate a distorted political perspective, providing a platform for anti-elite sentiments and disinformation that delegitimize traditional political actors. Alternative media may appeal to individuals with populist attitudes (Müller & Schulz, 2021), whose cynical anti-establishment beliefs and distrust in established information sources resonate with the values of (hyper-partisan) alternative media. Thus, we expect the following:

H4: More frequent exposure to news from alternative media is associated with (a) lower sensitivity and (b) stronger response bias.

Country-Level Differences in the Susceptibility to (Mis)Information

Not only can individual characteristics affect the ability to distinguish between true and false information about the war in Ukraine but contextual factors at the country level can also play a role. In citizens' information environment, press freedom is a key factor shaping the reliability and diversity of available information. Higher levels of press freedom allow for greater journalistic independence, fostering investigative reporting and critical coverage of political actors, which can provide context and help counter misinformation (Brüggemann et al., 2014; Humprecht et al., 2020; Štětka & Mihelj, 2024). As a result, differences in press freedom levels can shape how media consumption influences citizens' vulnerability to misinformation. We therefore propose the following hypothesis:

H5: The higher the level of press freedom in countries, (a) the higher the sensitivity and (b) the more neutral the response bias of its citizens.

Method

Data Collection and Sample

The analysis relies on online survey data from 19 countries, mostly in Europe, as well as the United States and Brazil. These countries are comparable in that they are all democracies; however, they show some variation in their involvement in and stance on the war in Ukraine (see attitude toward war in measures) and vary in press freedom. Both dimensions differ considerably across countries, as shown in the country-level descriptive statistics (Appendix, Table A6), which highlight variation in press freedom as well as in average pro- and anti-Russia attitudes. Fieldwork was conducted during the early stage of the full-scale war (April–May 2022). About 1,000 participants in each of the following countries were recruited:

https://doi.org/10.65476/9fwxp210

Austria, Belgium, Brazil, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, the Netherlands, Poland, Romania, Serbia, Spain, Sweden, Switzerland, the United Kingdom, and the United States, resulting in a total of *N* = 19,037 participants. Recruitment and data collection were carried out by Kantar Lightspeed through online access panels using quota sampling on gender, age, and education to approximate the composition of the online population in each country. Quota targets were monitored throughout fieldwork, but not enforced as hard caps for every possible cross-classification. For set and achieved quotas, see online supporting information. Overall, 47% of respondents were female, and the mean age was 48.97 years. The study received ethical approval from the University of Amsterdam.

Measures

Predictor and Outcome Variables

For descriptives per country, see online supporting information.[1]

News use was assessed by asking participants how often they relied on different news genres to obtain information about political news and societal issues. A rating scale ranging from never (1) to very often (7) was used. TV (*M* = 5.18, SD = 1.87) and newspapers (*M* = 4.36, SD = 2.04) were considered as representative of traditional news sources, while social media platforms (*M* = 4.10, SD = 2.16) and messaging services (*M* = 3.43, SD = 2.14) were seen as representatives of more digital and social network sources. Moreover, alternative left-wing media (*M* = 3.923, SD = 2.533) and alternative right-wing media (*M* = 4.000, SD = 2.557) were also assessed, both including two country-specific examples.

Press freedom was based on the 2023 World Press Freedom Index as published yearly by Reporters Without Borders, which captures the status during the time of investigation in 2022 (Reporters Without Borders, 2022). This comparative index measures journalists' freedom across 180 countries and regions, drawing on expert assessments in various categories (e.g., pluralism, media independence, and journalist safety). The result is a score from 1 to 100. The lowest value in our sample was 55.52 in Greece, the maximum 89.48 in Denmark (*M* = 74.568, SD = 10.088).

Attitudes toward the war were measured on scales from 1 (completely disagree) to 7 (completely agree) using two statements, each representing a pro- and anti-Russia perspective: (1) Russia uses disproportionate violence against Ukraine (anti-Russia); (2) The global community should do more to help Ukraine to defend itself (anti-Russia); (3) Russia's military operation in Ukraine is legitimate (pro-Russia); (4) Russia should not be sanctioned for its military operation against Ukraine (pro-Russia). A score was formed for both pro-Russia (*M* = 2.52, SD = 1.75) and anti-Russia (*M* = 5.34, SD = 1.58). This measurement preceded the presentation of the (mis)information statements.

[1] https://osf.io/vsz79/overview?view_only=26462d6d19e34d529ae2b2bd6aa941bf.

https://doi.org/10.65476/9fwxp210

(Mis)Information statements comprised 10 true or false claims aligned with either pro- or anti-Russia narratives about the war in Ukraine.[2] The statements used in this study were drawn from fact-checked claims circulating during the war in Ukraine, identified through independent fact-checking organizations (e.g., factcheck.org, politifact.com, the British Broadcasting Company [BBC]). Each statement was evaluated against available empirical evidence and classified as either true or false at the time of data collection, ensuring the inclusion of both pro-Russia and counter-Russia narratives. Participants rated each statement on a 5-point scale from "very certain it's false" (1) to "very certain it's true" (5). For a complete list of statements and average ratings, see Appendix, Table A1.

We applied SDT to quantify participants' ability to discriminate between true and false statements (sensitivity) and their tendency to favor one response over the other (response bias). In this framework, true statements functioned as signals and false statements as noise. Believing a true statement counts as a hit, rejecting it as a miss. Correctly rejecting a false statement is a correct rejection, whereas believing it is a false alarm. Based on this, the measures are calculated (Stanislaw & Todorov, 1999).

Sensitivity was measured as the area under the receiver operating characteristic (ROC) curve (Swets, 1996). For each participant, we calculated the hit rate (HR) and false alarm rate (FAR) at each possible rating threshold (1–5), treating ratings ≥ the threshold as a signal response. ROC curves plot HR against FAR across thresholds, and the area under the curve AUC summarizes the overall ability to distinguish true from false statements. Using the nonparametric trapezoidal method (pROC package in R; Robin et al., 2011), AUC was computed as the sum of trapezoidal areas between consecutive points along the ROC curve:

$$AUC = \sum_{i=1}^{n-1} (FAR_{i+1} + FAR_i) \times \frac{HR_{i+1} + HR_i}{2}$$

where n is the number of distinct thresholds tested, and i indexes consecutive points along the ROC curve. This formula sums the areas of the trapezoids under the curve between each pair of points. It represents the probability that a randomly chosen true statement is rated as more accurate than a randomly chosen false statement. AUC values range from 0.5 (chance performance) to 1 (perfect discrimination). AUC was calculated pooled across all statements (M = .615, SD = .113) and separately for pro-Russia and anti-Russia statements (M_{pro} = .660, SD_{pro} = .168; M_{anti} = .659, SD_{anti} = .151).

Response bias was quantified using the SDT criterion (c), which represents the decision threshold for classifying statements as true or false. Positive values indicate a so-called conservative bias (tendency to judge statements as false), while negative values indicate a liberal bias (tendency to judge statements as true). Criterion was calculated as

[2] In rating-based SDT, unequal numbers of signal (true) and noise (false) items do not in themselves bias area under the curve (AUC) estimates because AUC is insensitive to the base rate of signals. However, imbalance can still matter for smaller item sets, as uneven counts can increase variability, and when pooling across qualitatively different item types (e.g., pro and anti statements with different difficulty distributions), imbalance can change the overall receiver operating curve (ROC) shape and thus lower the combined AUC compared with the separate ones.

https://doi.org/10.65476/9fwxp210

$$c = -\frac{[z(HR) + z(FAR)]}{2},$$

where z denotes the standard normal transform. To handle extreme values (HR or FAR of 0 or 1), we applied a loglinear correction before transformation (Hautus, 1995).

As with AUC, criterion was calculated for all statements combined (M = .405, SD = .492) and separately for pro-Russia (M = .660, SD = .561) and anti-Russia statements (M = .038, SD = .604). In addition to reporting c directly, the absolute response bias was computed as the absolute value of the normalized criterion to capture the magnitude of bias. Original c values were scaled to $[-1, 1]$ and then transformed to $|c|$, yielding a scale from 0 (no bias) to 1 (maximal bias; $M_{overall}$ = .215, SD = .169; M_{pro} = .345, SD = .140; M_{anti} = .215, SD = .145). Absolute criterion values indicate the magnitude of participants' tendency to over- or underestimate the presence of true information, regardless of direction. The original c values aid in interpreting whether higher or lower media use shifts bias toward more trusting (liberal) or skeptical (conservative) judgments.

Results

Sensitivity and Response Bias at the Individual Level

To analyze the relationships between individual-level news use and the evaluation of (mis)information, we employed linear mixed models with individuals nested within countries (see Table 1). The main dependent variables were sensitivity (AUC) and absolute response bias (c). The predictors were normalized to range from 0 to 1 to facilitate interpretation and comparison of effect sizes. For more nuanced insights, the models were also run separately for pro- and anti-Russia statements (see Appendix, Tables A2 and A3). For the models with the signed response bias (c) for all statements and pro- and anti-Russia ones separately, see Appendix, Table A4.

Individuals who relied more on traditional media channels were expected to better differentiate between true and false statements (higher sensitivity). Those who relied more on newspapers for political information were better able to discern true from false statements overall and for pro-Russia-framed items. Newspaper consumption emerged as the strongest positive news use predictor of sensitivity. TV news use, however, showed no significant effect on sensitivity. H1a was thus partly supported. Regarding response bias, greater TV news exposure was associated with a lower absolute bias (i.e., a more balanced evaluation of statements). This effect was only visible overall, not when assessing the two sets of statements individually. Analyses using the signed (i.e., directional) response bias indicate that TV users were generally more inclined to judge statements as true, particularly anti-Russia ones (Table A4). Newspaper consumption did not affect absolute response bias overall; however, it was associated with less biased evaluations of pro-Russia statements (Table A3). Similar to TV use, newspaper consumption was associated with a greater tendency to label statements as true across all models (Table A4). This offers some support for H1b.

https://doi.org/10.65476/9fwxp210

Table 1. Mixed Model Coefficients for Media Use and Sensitivity and Response Bias.

	Sensitivity (AUC)	Absolute response bias (|c|)
Predictors	*Estimates*	*Estimates*
(Intercept)	0.588***	0.296***
News genre		
TV	0.003	−0.025***
Newspapers	0.016***	−0.009
Social media	−0.000	−0.021***
Messengers	−0.016***	0.015**
Alternative media (left-wing)	−0.001	0.018***
Alternative media (right-wing)	−0.003	−0.004
Controls		
Media trust	0.013**	0.045***
Age	0.003	−0.078***
Gender	−0.024***	0.002
Education	0.025***	−0.004
Political interest	0.033***	−0.080***
War attitudes (pro-Russia)	−0.042***	0.082***
War attitudes (anti-Russia)	0.008*	−0.041***
Random effects		
σ^2	0.01	0.03
τ_{00}	$0.00_{country}$	$0.00_{country}$
ICC	0.01	0.01
Marginal R^2 / conditional R^2	0.058/0.064	0.079/0.089

Note. N = 16,921.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Social media use was not associated with poorer discernment of true versus false statements, either overall or within the subsets. Answering RQ1a, social media did not affect sensitivity in either direction. In relation to RQ1b, social media use was linked to slightly weaker overall response biases, an effect most apparent for pro-Russia statements. Directionally, social media use appeared to reduce skepticism toward all sets of statements (Table A4).

In contrast, those who indicated higher use of messaging services had substantially lower levels of sensitivity, supporting H3a. Messaging-service use was associated with stronger response bias across all models, being most pronounced for anti-Russia statements (Table A3). The absence of an effect on signed response bias indicates that this pattern lacked a consistent directional tendency.

The use of alternative media was expected to negatively affect sensitivity while being associated with stronger response biases. We did not find any evidence of either left- or right-wing alternative media use influencing sensitivity on any level; H4a was thus rejected. Use of right-wing alternative media was

https://doi.org/10.65476/9fwxp210

likewise unrelated to response bias. By contrast, left-wing alternative media use was associated with stronger response biases. Analyses of the signed response bias indicate that this effect reflects greater overall skepticism among these users, particularly toward anti-Russia statements (Table A4), offering some support for H4b.

Country-Level Differences and the Role of Press Freedom

Before examining cross-national determinants of disinformation susceptibility, descriptive results illustrate the differences and similarities between countries. For an overview of descriptives per country, see Open Science Framework (OSF). Mean overall sensitivity was above 0.5 for all 19 countries and ranged from M = .560 in Greece to M = .630 in Switzerland (see Figure 1, first plot). In other words, discernment was better than chance in all countries. Comparing sensitivity across countries revealed some variations, though the differences were not substantial.

Across most countries, participants evaluated the pro-Russia-framed statements with a stronger bias than the anti-Russia-framed ones (see Figure 1, second plot). There was more variability in response bias compared with sensitivity and exceptions to the overall pattern (see Figure 1). More precisely, in Greece, the absolute response bias scores for both pro- and anti-Russia statements were almost the same. In Serbia, we found a reverse pattern: On average, anti-Russia statements were subject to more biased evaluations than pro-Russia ones. Considering normalized response bias values, this pattern appears to result from Greek and Serbian citizens being least skeptical of pro-Russia-framed claims (see Appendix, Figure A1).

https://doi.org/10.65476/9fwxp210

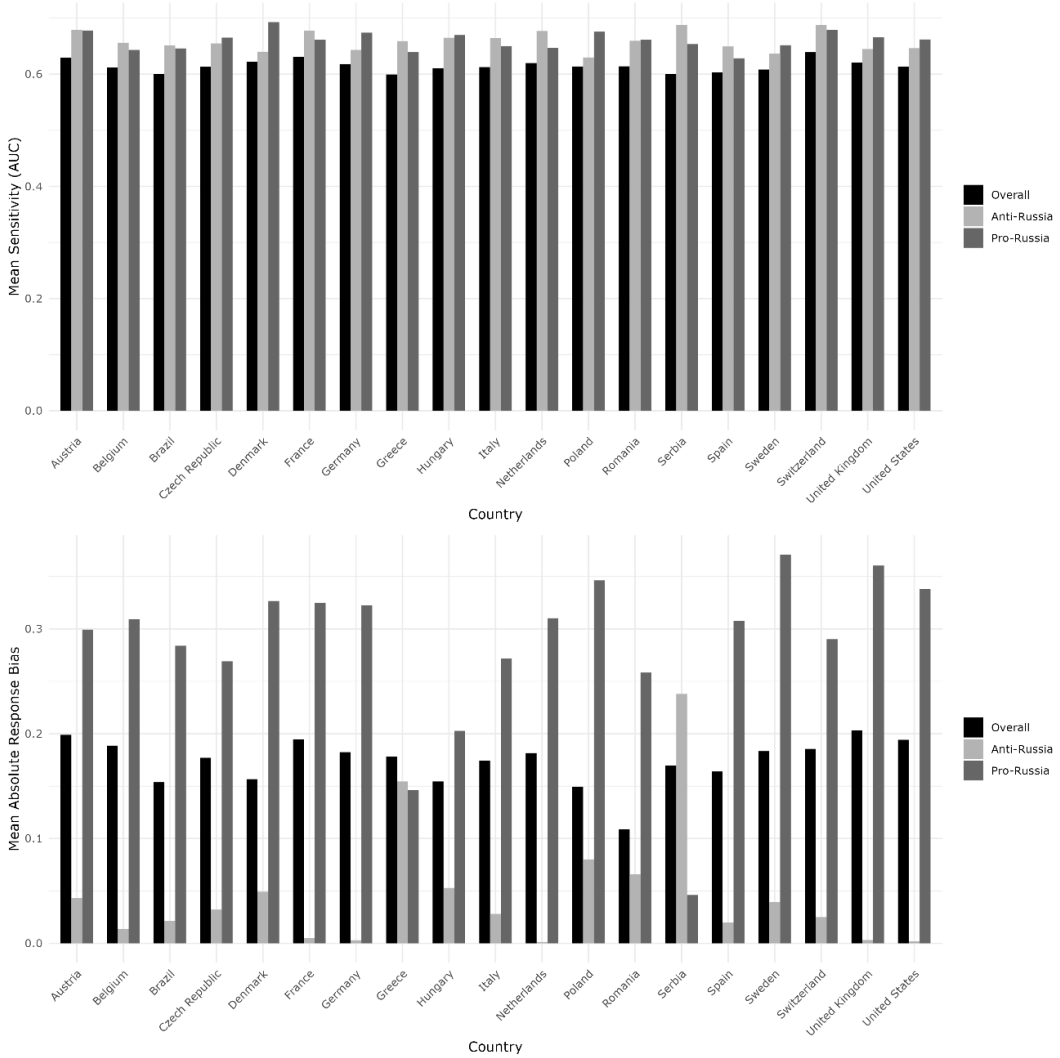

Figure 1. Mean sensitivity and absolute response bias by country.[3]

The Role of Press Freedom

To analyze how varying levels of press freedom relate to sensitivity and response bias, press freedom was added to the model (see Table 2). Press freedom was not associated with overall sensitivity.

[3] Overall AUC is lower than the separate pro- and anti-statement AUCs because combining both categories introduces additional overlap between signal and noise ratings across categories. While each set is well-separated internally, differences in difficulty and rating distributions between pro and anti items can reduce discrimination when pooled.

https://doi.org/10.65476/9fwxp210

However, there was a positive direct effect for the pro-Russia statements (see Appendix, Table A5). In other words, citizens in countries with greater press freedom were more capable of evaluating which pro-Russia statements were true or false. Overall, this offers partial support for H5a.

Absolute response bias was also not affected overall. When examining pro- and anti-Russia statements separately, the null result appears to stem from opposing effects that cancel out each other in the overall model (Table A5). Higher press freedom levels were associated with decreased absolute response bias for anti-Russia-framed claims, but increased bias for pro-Russia ones. Directional response-bias analyses indicate that in higher press freedom environments, pro-Russia claims are disproportionately disbelieved. H5b is thus not supported.

Table 2. Multilevel Models With Press Freedom Predicting Sensitivity and Response Bias.

	Sensitivity (AUC)	Absolute response bias (|c|)
Predictors	*Estimates*	*Estimates*
(Intercept)	0.583***	0.290***
Press freedom	0.010	0.019
News genre		
TV	0.003	−0.027***
Newspapers	0.017***	−0.010
Social media	0.001	−0.021***
Messengers	−0.016***	0.016**
Alternative media (left-wing)	−0.001	0.015**
Alternative media (right-wing)	−0.004	−0.001
Controls		
Media trust	0.013*	0.043***
Age	0.007	−0.082***
Gender	−0.024***	0.001
Education	0.025***	−0.003
Political interest	0.032***	−0.079***
War attitudes (pro-Russia)	−0.044***	0.082***
War attitudes (anti-Russia)	0.006	−0.042***
Random effects		
σ^2	0.01	0.03
τ_{00}	$0.00_{country}$	$0.00_{country}$
ICC	0.01	0.01
Marginal R^2 / conditional R^2	0.060/0.066	0.079/0.089

Note. N = 15,988.
* $p < .05$. ** $p < .01$. *** $p < .001$.

https://doi.org/10.65476/9fwxp210

Discussion

Despite being a focal point in previous research, measuring susceptibility to false and misleading information has repeatedly proven to be a challenge (e.g., Bryanov & Vziatysheva, 2021), especially as truth discernment is surrounded by different biases and modes of evaluation. The findings of this study provide important insights into the role of different media sources in shaping individuals' ability to discern true from false information as well as their tendency to make biased evaluations in the highly relevant context of Russia's invasion of Ukraine.

First, traditional media consumption played a mixed role in sensitivity. As expected, reliance on newspapers for political information was associated with better ability to distinguish both pro- and anti-Russia-framed statements. This suggests that newspapers may provide more in-depth or critical reporting that helps readers develop a deeper understanding of the matter. However, TV news did not show the same effect, suggesting that television coverage may not provide the detail or engagement needed to improve sensitivity. Quality may also vary more widely across television channels and countries. In terms of absolute response bias, greater newspaper reading and TV news use were linked to lower overall bias, that is, judgments closer to a balanced decision threshold. These effects were visible primarily when all statements were considered together and did not consistently hold when pro- and anti-Russia statements were examined separately. This suggests that mainstream media outlets may contribute to more even-handed evaluations overall. The finding that newspaper users show less bias in evaluating pro-Russia-framed claims may be linked to the predominantly Russia-critical stance of mainstream media in most of the countries studied, where overtly pro-Russia narratives are rare, even when factually accurate (Nordenstreng, 2023). Because newspapers often provide more in-depth coverage, readers may be better informed and more attuned to nuance, including perspectives that do not align with an uncompromising anti-Russia position.

Regarding the role of digital media, social media consumption was not associated with reduced sensitivity, challenging the assumption that political information from social media is predominantly unreliable. While it also did not relate to better sensitivity, we found an association with more balanced evaluations (i.e., lower absolute response bias levels). This may reflect that social media environments extend mainstream coverage and, in this case, counterweight its predominantly anti-Russia stance.

The use of messaging services for news consumption was most strongly linked to lower sensitivity across the board. It also consistently predicted stronger response bias, reinforcing concerns about the reliability and balance of information circulating within closed-network platforms (Dogruel et al., 2023). Finally, contrary to expectations, the use of alternative media did not affect sensitivity. This finding suggests that while alternative media may present biased or selective reporting, it does not necessarily impair individuals' ability to differentiate true from false information in this context. However, response biases were affected: Those who consumed left-wing alternative media were further removed from a balanced evaluation of statements, especially pro-Russia ones. This highlights how exposure to ideologically driven media can reinforce preexisting biases rather than affect sensitivity—an effect that would likely remain unnoticed or underestimated if belief in misinformation was measured in simpler ways.

https://doi.org/10.65476/9fwxp210

At the country level, the variation in sensitivity was less pronounced than that of response bias. This may be because of a similar salience of war coverage during our survey, which leveled the conditions for all countries. However, the varying degrees of response bias indicate that countries are not dealing with (mis)information on the war in Ukraine in the same way, which is a phenomenon that only the application of SDT made visible.

Our findings indicate that higher levels of press freedom are associated with greater sensitivity when evaluating pro-Russia statements. Rather than reflecting a general increase in information quality, this relationship likely depends on broader contextual factors such as geopolitical alignment, elite consensus, and issue salience. In media environments with greater press freedom, dominant political and journalistic actors tend to converge more strongly on critical interpretations of Russia, which may facilitate the detection of misleading pro-Russia narratives. This interpretation is consistent with the response bias results, which show less bias for widely shared anti-Russia perspectives, but stronger bias when evaluating pro-Russia-aligned (mis)information. The absence of an overall effect and of effects for anti-Russia statements suggests that press freedom does not uniformly enhance sensitivity across issue positions.

This study has a few inherent limitations. First, we based our analyses on a limited selection of statements related to the war in Ukraine, which had variations in partisan inclinations and discernibility. To accommodate our analyses, a balance was created that does not represent a mirror of reality. We suggest that future research include a wider range of true and false statements. Second, although we made efforts to match each country's population in terms of age, education, and gender quotas, the online nature of the study and reliance on access panels resulted in the underrepresentation of certain demographic groups, such as older citizens with low educational degrees. Third, the cross-sectional nature of the survey data does not give insight into the direction of effects. Especially in terms of media use, reciprocal effects are possible. Further, the measurement of media use necessarily relies on broad, self-reported categories such as television news, newspapers, or social media. While this approach enables large-scale cross-national comparisons, these categories encompass highly heterogeneous content and media environments across countries. For instance, TV news or social media may differ substantially in terms of journalistic standards and quality of content across national contexts. In addition, this study relies on self-reported media consumption measures, which are subject to recall bias and social desirability and may not fully capture actual exposure. Future research could complement these with digital-trace or diary methods. Lastly, despite the number of countries represented, large parts of the world are still neglected, especially in the Global South. This limits the representation of different media systems and news sources that would have been valuable also regarding their influence on perceptions of the war in Ukraine.

Overall, this study advances research on susceptibility to misinformation by showing that vulnerability is not primarily a matter of general evaluative skill, but of how media environments and media diets shape judgment tendencies. Using a signal detection framework allows us to disentangle sensitivity from response bias and to demonstrate that these components capture different pathways through which media exposure affects information evaluation. Traditional media, particularly newspapers, appear to foster more balanced evaluations, while messaging apps may exacerbate biases. Social media can extend mainstream coverage and support more nuanced judgments, challenging simplistic assumptions about its inherently misleading nature. Importantly, the results highlight that exposure to ideologically driven media

https://doi.org/10.65476/9fwxp210

primarily influences bias rather than sensitivity, emphasizing the need for nuanced conceptualizations of misinformation susceptibility. By integrating individual-level media use with country-level contextual factors such as press freedom, this research illustrates how macro-level conditions interact with personal media environments to shape the interpretation of politically charged information. These insights provide a foundation for targeted interventions and cross-national comparisons of public resilience to misinformation.

References

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

Allen, J., Watts, D. J., & Rand, D. G. (2024). Quantifying the impact of misinformation and vaccine-skeptical content on Facebook. *Science*, *384*(6699), Article eadk3451. https://doi.org/10.1126/science.adk3451

Altay, S., Hoes, E., & Wojcieszak, M. (2025). Following news on social media boosts knowledge, belief accuracy, and trust. *Nature Human Behaviour*. Advance online publication. https://doi.org/10.1038/s41562-025-02205-6

Batailler, C., Brannon, S. M., Teas, P. E., & Gawronski, B. (2022). A signal detection approach to understanding the identification of fake news. *Perspectives on Psychological Science*, *17*(1), 78–98. https://doi.org/10.1177/1745691620986135

Bessi, A., Zollo, F., Del Vicario, M., Puliga, M., Scala, A., Caldarelli, G., Uzzi, B., & Quattrociocchi, W. (2016). Users polarization on Facebook and Youtube. *PLOS One*, *11*(8), Article e0159641. https://doi.org/10.1371/journal.pone.0159641

Bryanov, K., & Vziatysheva, V. (2021). Determinants of individuals' belief in fake news: A scoping review determinants of belief in fake news. *PLOS One*, *16*(6), Article e0253717. https://doi.org/10.1371/journal.pone.0253717

Cushion, S., Morani, M., Kyriakidou, M., & Soo, N. (2022). (Mis)understanding the Coronavirus and how it was handled in the UK: An analysis of public knowledge and the information environment. *Journalism Studies*, *23*(5–6), 703–721. https://doi.org/10.1080/1461670X.2021.1950564

Dogruel, L., Kruschinski, S., Jost, P., & Jürgens, P. (2023). Distribution and reception of conspiracy theories and mobilization calls on Telegram. Combining evidence from a content analysis and survey during the pandemic. *M&K Medien & Kommunikationswissenschaft*, *71*(3–4), 230–247. https://doi.org/10.5771/1615-634X-2023-3-4-230

https://doi.org/10.65476/9fwxp210

van Erkel, P. F. A., & Van Aelst, P. (2021). Why don't we learn from social media? Studying effects of and mechanisms behind social media news use on general surveillance political knowledge. *Political Communication*, *38*(4), 407–425. https://doi.org/10.1080/10584609.2020.1784328

Erlich, A., & Garner, C. (2023). Is pro-Kremlin disinformation effective? Evidence from Ukraine. *The International Journal of Press/Politics*, *28*(1), 5–28. https://doi.org/10.1177/19401612211045221

Fraile, M., & Iyengar, S. (2014). Not all news sources are equally informative: A cross-national analysis of political knowledge in Europe. *The International Journal of Press/Politics*, *19*(3), 275–294. https://doi.org/10.1177/1940161214528993

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

Gawronski, B., Ng, N. L., & Luke, D. M. (2023). Truth sensitivity and partisan bias in responses to misinformation. *Journal of Experimental Psychology: General*, *152*(8), 2205–2236. https://doi.org/10.1037/xge0001381

Gil de Zúñiga, H., & Goyanes, M. (2023). Fueling civil disobedience in democracy: WhatsApp news use, political knowledge, and illegal political protest. *New Media & Society*, *25*(12), 3500–3520. https://doi.org/10.1177/14614448211047850

Hameleers, M. (2023). Disinformation as a context-bound phenomenon: Toward a conceptual clarification integrating actors, intentions and techniques of creation and dissemination. *Communication Theory*, *33*(1), 1–10. https://doi.org/10.1093/ct/qtac021

Hautus, M. J. (1995). Corrections for extreme proportions and their biasing effects on estimated values of d'. *Behavior Research Methods, Instruments, & Computers*, *27*(1), 46–51. https://doi.org/10.3758/BF03203619

Higham, P. A., Modirrousta-Galian, A., & Seabrooke, T. (2024). Mean rating difference scores are poor measures of discernment: The role of response criteria. *Current Opinion in Psychology*, *56*, Article 101785. https://doi.org/10.1016/j.copsyc.2023.101785

Humprecht, E., Esser, F., & Van Aelst, P. (2020). Resilience to online disinformation: A framework for cross-national comparative research. *The International Journal of Press/Politics*, *25*(3), 493–516. https://doi.org/10.1177/1940161219900126

Kuklinski, J. H., Quirk, P. J., Jerit, J., Schwieder, D., & 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

https://doi.org/10.65476/9fwxp210

Modirrousta-Galian, A., & Higham, P. A. (2023). Gamified inoculation interventions do not improve discrimination between true and fake news: Reanalyzing existing research with receiver operating characteristic analysis. *Journal of Experimental Psychology*, *152*(9), 2411–2437. https://doi.org/10.1037/xge0001395

Müller, P., & Schulz, A. (2021). Alternative media for a populist audience? Exploring political and media use predictors of exposure to Breitbart, Sputnik, and Co. *Information, Communication & Society*, *24*(2), 277–293. https://doi.org/10.1080/1369118X.2019.1646778

Nordenstreng, K. (2023). *Coverage of the Russia-Ukraine war by television news in nine countries*. Tampere, Finland: Tampere University. https://urn.fi/URN:ISBN:978-952-03-2852-8

Nyhan, B. (2020). Facts and myths about misperceptions. *Journal of Economic Perspectives*, *34*(3), 220–236. https://doi.org/10.1257/jep.34.3.220

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

Pennycook, G., & Rand, D. G. (2021). The psychology of fake news. *Trends in Cognitive Sciences*, *25*(5), 388–402. https://doi.org/10.1016/j.tics.2021.02.007

Pereira, A., Harris, E., & Van Bavel, J. J. (2023). Identity concerns drive belief: The impact of partisan identity on the belief and dissemination of true and false news. *Group Processes & Intergroup Relations*, *26*(1), 24–47. https://doi.org/10.1177/13684302211030004

Pfänder, J., & Altay, S. (2025). Spotting false news and doubting true news: A systematic review and meta-analysis of news judgments. *Nature Human Behaviour*, *9*, 688–699. https://doi.org/10.1038/s41562-024-02086-1

Reporters Without Borders. (2022). *2022 World press freedom index*. https://rsf.org/en/index?year=2022

Robin, X., Turck, N., Hainard, A., Tiberti, N., Lisacek, F., Sanchez, J.-C., & Müller, M. (2011). pROC: An open-source package for R and S+ to analyze and compare ROC curves. *BMC Bioinformatics*, *12*, Article 77. https://doi.org/10.1186/1471-2105-12-77

Robinson, J. P., & Davis, D. K. (1990). Television news and the informed public: An information-processing approach. *Journal of Communication*, *40*(3), 106–119. https://doi.org/10.1111/j.1460-2466.1990.tb02273.x

Rojecki, A., & Meraz, S. (2016). Rumors and factitious informational blends: The role of the web in speculative politics. *New Media & Society*, *18*(1), 25–43. https://doi.org/10.1177/1461444814535724

https://doi.org/10.65476/9fwxp210

Roozenbeek, J., Maertens, R., Herzog, S., Geers, M., Kurvers, R., Sultan, M., & van der Linden, S. (2022). Susceptibility to misinformation is consistent across question framings and response modes and better explained by myside bias and partisanship than analytical thinking. *Judgment and Decision Making*, *17*(3), 547–573. https://doi.org/10.1017/S1930297500003570

Roozenbeek, J., Schneider, C. R., Dryhurst, S., Kerr, J., Freeman, A. L., Recchia, G., & van der Linden, S. (2020). Susceptibility to misinformation about COVID-19 around the world. *Royal Society Open Science*, *7*(10), Article 201199. https://doi.org/10.1098/rsos.201199

Schaewitz, L., Kluck, J. P., Klösters, L., & Krämer, N. C. (2020). When is disinformation (in)credible? Experimental findings on message characteristics and individual differences. *Mass Communication and Society*, *23*(4), 484–509. https://doi.org/10.1080/15205436.2020.1716983

Schäfer, S. (2020). Illusion of knowledge through Facebook news? Effects of snack news in a news feed on perceived knowledge, attitude strength, and willingness for discussions. *Computers in Human Behavior*, *103*, 1–12. https://doi.org/10.1016/j.chb.2019.08.031

Shaughnessy, B., Hutchens, M. J., & DuBosar, E. (2024). That is so mainstream: The impact of hyper-partisan media use and right-, left-wing alternative media repertoires on consumers' belief in political misperceptions in the United States. *International Journal of Communication*, *18*, 1561–1581.

Stanislaw, H., & Todorov, N. (1999). Calculation of signal detection measures. *Behavior Research Methods, Instruments, & Computers: A Journal of the Psychonomic Society, Inc*, *31*, 137–149. https://doi.org/10.3758/BF03207704

Štětka, V., & Mihelj, S. (2024). *The illiberal public sphere: Media in polarized societies*. London, UK: Palgrave Macmillan.

Swets, J. A. (1996). *Signal detection theory and ROC analysis in psychology and diagnostics: Collected papers* (1st ed.). New York, NY: Psychology Press. https://doi.org/10.4324/9781315806167

Van Aelst, P., Strömbäck, J., Aalberg, T., Esser, F., de Vreese, C. H., Matthes, J., Hopmann, D. N., Salgado, S., Hubé, N., Stępińska, 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

Vliegenthart, R., Van Ham, C., Kruikemeier, S., & Jacobs, K. (2024). A matter of misunderstanding? Explaining (mis)perceptions of electoral integrity across 25 different nations. *Public Opinion Quarterly*, *88*(SI), 495–515. https://doi.org/10.1093/poq/nfae021

https://doi.org/10.65476/9fwxp210

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. https://doi.org/10.1080/10584609.2020.1716500

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false online information. *Science*, *359*(6380), 1146–1151. https://doi.org/10.1126/science.aap9559

Waisbord, S. (2018). The elective affinity between post-truth communication and populist politics. *Communication Research and Practice*, *4*(1), 17–34. https://doi.org/10.1080/22041451.2018.1428928

Willeke, C. (2024). Dissemination of disinformation on messenger services: Shutting down Telegram or introducing a chat control? In O. Batura, B. Holznagel, & J. C. Kalbhenn (Eds.), *Disinformation in Europe* (pp. 153–176). Baden-Baden, Germany: Nomos. https://doi.org/10.5771/9783748948124-153

Yamamoto, Y., Tsuzuki, T., Akatsuka, J., Ueki, M., Morikawa, H., Numata, Y., Takahara, T., Tsuyuki, T., Tsutsumi, K., Nakazawa, R., Shimizu, A., Maeda, I., Tsuchiya, S., Kanno, H., Kondo, Y., Fukumoto, M., Tamiya, G., Ueda, N., & Kimura, G. (2019). Automated acquisition of explainable knowledge from unannotated histopathology images. *Nature Communications, 10*, Article 5642. https://doi.org/10.1038/s41467-019-13647-8

Zimmermann, F., & Kohring, M. (2020). Mistrust, disinforming news, and vote choice: A panel survey on the origins and consequences of believing disinformation in the 2017 German parliamentary election. *Political Communication*, *37*(2), 215–237. https://doi.org/10.1080/10584609.2019.1686095

https://doi.org/10.65476/9fwxp210

Appendix

Table A1. Mean Truth Ratings for Statements.

Statement	Truth rating	
	M	SD
Anti-Russia		
1. The Russian attack repeatedly hit civilian targets in Ukraine. (true)	4.07	1.07
2. China has publicly condemned the Russian invasion of Ukraine. (false)	2.48	1.11
3. NATO is keeping previous agreements on which countries are allowed to join NATO. (true)	3.33	1.00
4. In Russia-occupied Crimea and in the Donbas, Ukrainians live in repression and fear. (true)	3.57	1.12
5. Russia is committing genocide in Ukraine. (false/not verified)	3.79	1.20
Mean anti-Russia statements	*3.45*	*0.69*
Mean anti-Russia statements true	*3.65*	*0.79*
Mean anti-Russia statements false	*3.14*	*0.81*
Pro-Russia		
6. Ukraine's government is anti-Semitic and controlled by neo-Nazis. (false)	2.22	1.19
7. Ukraine has repeatedly broken the ceasefire they previously agreed to. (true)	2.51	1.13
8. The U.S. is funding biological weapons research in Ukraine. (false)	2.80	1.14
9. The Ukrainian Armed Forces are supported by far-right militias. (true)	2.88	1.08
10. Ukraine signed a law that forbids publishing news only in Russian. (true)	2.85	0.97
Mean pro-Russia statements	*2.65*	*0.81*
Mean pro-Russia statements true	*2.75*	*0.81*
Mean pro-Russia statements false	*2.51*	*1.01*
Mean overall true statements	*3.20*	*0.47*
Mean overall false statements	*2.82*	*0.61*

Notes. *N* = 19,037, ratings on a scale from 1 (certainly false) to 5 (certainly true).

https://doi.org/10.65476/9fwxp210

Table A2. Estimates for Sensitivity for Pro- and Anti-Russia Statements.

	Sensitivity (AUC)	
	Anti-Russia statements	Pro-Russia statements
Predictors		
(Intercept)	0.660***	0.625***
News genre		
TV	0.008	−0.002
Newspapers	0.008	0.013**
Social media	0.003	0.005
Messengers	−0.015***	−0.019***
Alternative media (left-wing)	−0.001	0.003
Alternative media (right-wing)	−0.005	−0.003
Controls		
Media trust	0.007	0.007
Age	−0.028***	0.003
Gender	−0.016***	−0.028***
Education	0.019***	0.028***
Political interest	0.035***	0.042***
War attitudes (pro-Russia)	−0.014**	−0.042***
War attitudes (anti-Russia)	−0.025***	0.019**
Random effects		
σ^2	0.02	0.03
τ_{00}	$0.00_{country}$	$0.00_{country}$
ICC	0.01	0.01
Marginal R^2 / conditional R^2	0.015/0.026	0.033/0.040

Note. N = 16,921.
** $p < .01$. *** $p < .001$.

https://doi.org/10.65476/9fwxp210

Table A3. Estimates for Absolute Response Bias for Pro- and Anti-Russia Statements.

	Absolute response bias (|c|)	
	Anti-Russia statements	Pro-Russia statements
Predictors		
(Intercept)	0.254***	0.323***
News genre		
TV	−0.008	−0.002
Newspapers	0.001	−0.015***
Social media	0.000	−0.020***
Messengers	0.017***	0.008*
Alternative media (left-wing)	0.002	0.011**
Alternative media (right-wing)	−0.002	−0.006
Controls		
Media trust	0.002	0.057***
Age	0.005	0.049***
Gender	−0.001	0.005*
Education	−0.006	0.006
Political interest	−0.023***	−0.042***
War attitudes (pro-Russia)	0.114***	−0.066***
War attitudes (anti-Russia)	−0.076***	0.045***
Random effects		
σ^2	0.02	0.02
τ_{00}	$0.00_{country}$	$0.00_{country}$
ICC	0.01	0.02
Marginal R^2 / conditional R^2	0.114/0.119	0.066/0.084

Note. N = 16,921.
* $p < .05$. ** $p < .01$. *** $p < .001$.

https://doi.org/10.65476/9fwxp210

Table A4. Estimates for Signed Response Bias.

	Response bias (c)		
	All statements	Anti-Russia	Pro-Russia
Predictors			
(Intercept)	0.910***	0.847***	0.662***
News genre			
TV	−0.101***	−0.130***	−0.027
Newspapers	−0.041**	−0.044**	−0.031*
Social media	−0.078***	−0.035*	−0.090***
Messengers	0.003	0.000	−0.003
Alternative media (left-wing)	0.039**	0.052***	0.015
Alternative media (right-wing)	−0.014	−0.014	−0.009
Controls			
Media trust	0.008	−0.238***	0.233***
Age	−0.080**	−0.126***	0.013
Gender	0.005	−0.035***	0.044***
Education	−0.006	0.002	−0.008
Political interest	−0.241***	−0.166***	−0.219***
War attitudes (pro-Russia)	−0.137***	0.377***	−0.652***
War attitudes (anti-Russia)	−0.269***	−0.755***	0.347***
Random effects			
σ^2	0.22	0.25	0.22
τ_{00}	$0.00_{country}$	$0.01_{country}$	$0.01_{country}$
ICC	0.01	0.03	0.03
Marginal R^2 / conditional R^2	0.060/0.071	0.268/0.286	0.240/0.264

Note. N = 16,921.
* $p < .05$. ** $p < .01$. *** $p < .001$.

https://doi.org/10.65476/9fwxp210

Table A5. Estimates for Press Freedom and Sensitivity and Response Bias for Pro- and Anti-Russia Statements.

	Sensitivity		Absolute response bias (|c|)		Response bias (c)	
	Anti-Russia	*Pro-Russia*	*Anti-Russia*	*Pro-Russia*	*Anti-Russia*	*Pro-Russia*
Predictors						
(Intercept)	0.662***	0.622***	0.265***	0.309***	0.859***	0.609***
Press freedom	−0.007	0.008	−0.023**	0.036**	−0.013	0.163**
News genre						
TV	0.008	−0.000	−0.010*	−0.001	−0.138***	−0.033*
Newspapers	0.008	0.015**	0.003	−0.016***	−0.039*	−0.036*
Social media	0.003	0.006	−0.002	−0.021***	−0.034*	−0.089***
Messengers	−0.013**	−0.020***	0.017***	0.009*	−0.003	−0.000
Alternative media (left-wing)	−0.001	0.004	0.002	0.010*	0.042**	0.022
Alternative media (right-wing)	−0.004	−0.005	−0.000	−0.006	−0.004	−0.014
Controls						
Media trust	0.008	0.005	0.005	0.054***	−0.228***	0.209***
Age	−0.023**	0.007	0.004	0.045***	−0.147***	0.029
Gender	−0.017***	−0.028***	−0.001	0.006**	−0.040***	0.045***
Education	0.019***	0.028***	−0.005	0.005	0.000	−0.011
Political interest	0.033***	0.037***	−0.024***	−0.041**	−0.169***	−0.208***
War attitudes (pro-Russia)	−0.015**	−0.042***	0.115***	−0.068***	0.383***	−0.668***
War attitudes (anti-Russia)	−0.027***	0.018**	−0.075***	0.041***	−0.745***	0.314***
Random effects						
σ^2	0.02	0.03	0.02	0.02	0.25	0.22
τ_{00}	$0.00_{country}$	$0.00_{country}$	$0.00_{country}$	$0.00_{country}$	$0.01_{country}$	$0.01_{country}$
ICC	0.01	0.01	0.00	0.01	0.03	0.03
Marginal R^2 / conditional R^2	0.015/0.027	0.033/0.040	0.123/0.126	0.081/0.095	0.269/0.290	0.262/0.281

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

https://doi.org/10.65476/9fwxp210

Table A6. Country-Level Sample Composition and Contextual Indicators.

Country	Female	Age	Education	Political Interest	War Attitudes		Press Freedom
	%	*M* (SD)	*M* (SD)	*M* (SD)	Pro-Russia *M* (SD)	Anti-Russia *M* (SD)	*Index*
Austria	53.50	48.39 (15.32)	2.23 (0.54)	4.71 (1.76)	2.38 (1.64)	5.25 (1.53)	78.70
Belgium	52.10	51.00 (16.45)	2.33 (0.68)	4.45 (1.81)	2.35 (1.61)	5.44 (1.36)	78.90
Brazil	53.65	47.09 (14.89)	2.35 (0.83)	5.05 (1.80)	2.99 (1.80)	5.77 (1.49)	55.40
Czechia	52.10	41.58 (15.44)	2.16 (0.60)	4.18 (1.89)	3.08 (1.72)	5.06 (1.73)	83.58
Denmark	48.45	51.44 (17.40)	2.19 (0.75)	4.73 (1.71)	1.97 (1.45)	5.54 (1.38)	90.30
France	53.84	52.89 (17.04)	2.37 (0.62)	4.54 (1.83)	2.14 (1.47)	5.38 (1.41)	78.50
Germany	51.60	53.50 (16.70)	2.21 (0.54)	4.96 (1.70)	2.17 (1.66)	5.51 (1.50)	82.00
Greece	52.54	43.33 (11.75)	2.57 (0.59)	4.60 (1.72)	3.02 (1.73)	4.61 (1.72)	55.50
Hungary	54.30	41.76 (14.55)	2.31 (0.72)	4.45 (1.88)	3.22 (1.88)	4.60 (1.70)	59.80
Italy	51.05	51.33 (16.69)	2.25 (0.61)	4.69 (1.72)	2.50 (1.69)	5.06 (1.53)	68.20
The Netherlands	57.23	53.10 (16.13)	2.17 (0.66)	4.36 (1.71)	2.20 (1.50)	5.57 (1.34)	77.90
Poland	52.79	47.68 (15.17)	2.46 (0.56)	4.89 (1.71)	1.85 (1.50)	6.04 (1.32)	65.60
Romania	49.40	38.70 (13.56)	2.56 (0.63)	4.50 (1.83)	2.50 (1.84)	5.48 (1.51)	68.50
Serbia	51.40	43.95 (13.97)	2.40 (0.58)	4.36 (1.79)	4.31 (1.75)	3.73 (1.75)	61.50
Spain	51.35	50.20 (15.08)	2.38 (0.71)	4.65 (1.84)	2.19 (1.56)	5.72 (1.38)	76.70
Sweden	59.24	54.76 (15.82)	2.31 (0.66)	4.58 (1.78)	2.02 (1.52)	5.98 (1.26)	88.80
Switzerland	52.04	47.26 (16.11)	2.35 (0.62)	4.42 (1.84)	2.51 (1.70)	5.19 (1.53)	82.70
United Kingdom	54.68	54.62 (16.05)	2.32 (0.64)	4.35 (1.83)	2.10 (1.61)	5.83 (1.35)	76.70
United States	52.19	57.95 (15.90)	2.41 (0.71)	4.59 (1.92)	2.42 (1.72)	5.73 (1.33)	72.70

https://doi.org/10.65476/9fwxp210

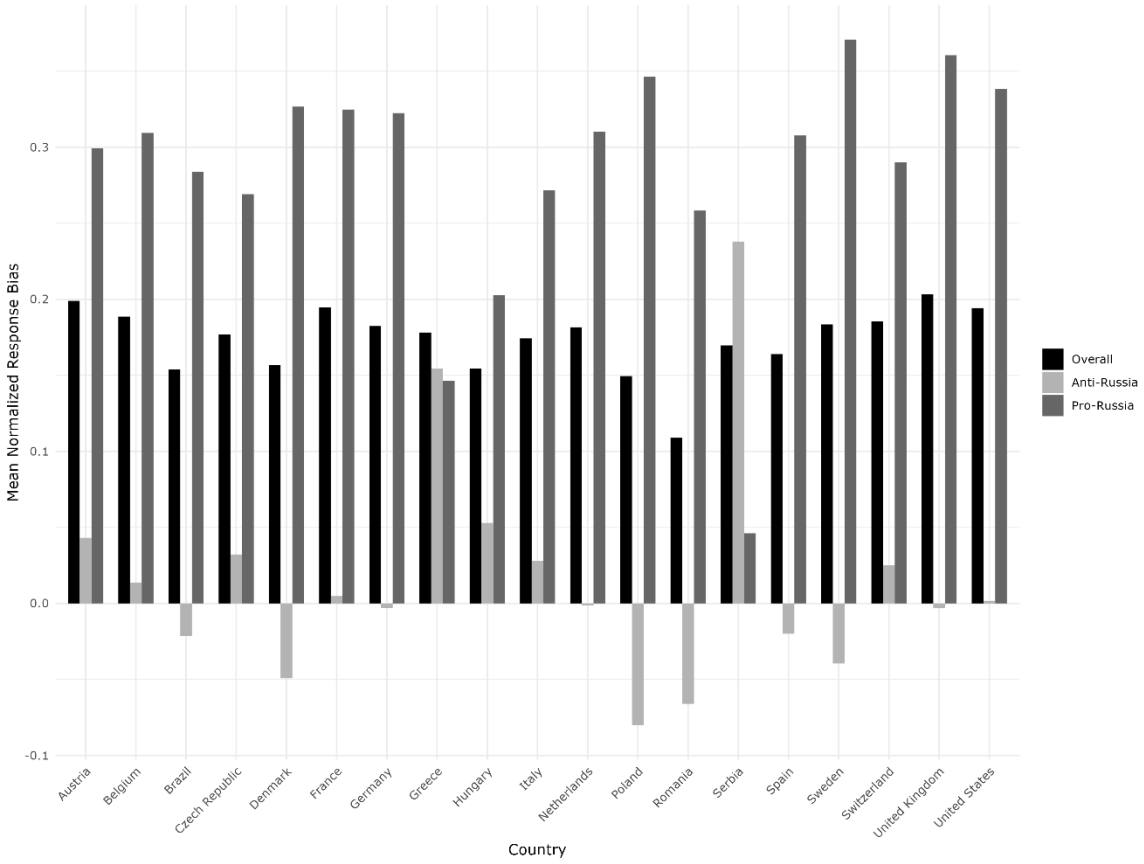

Figure A1. Mean normalized response bias by country, bias ranging from -1 (favoring "true") to 1 (favoring "false").

https://doi.org/10.65476/9fwxp210