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Misinformation Detection in the Context of the Russian Invasion of Ukraine: Evidence From Original Survey Data Collected in 19 Democracies

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Abstract

It can be difficult for citizens to discern factually accurate information from mis- and disinformation. Particularly in the context of the Russian invasion of Ukraine, the omnipresence of counterfactual narratives, propaganda, and partisan content may increase the likelihood that citizens select and accept mis -or disinformation. To assess citizens' performance in discerning false statements from factually accurate information on the war, we utilized original survey data across 19 countries (*N* = 19,037) with soft quotas for age, education, and gender to approximate population characteristics. Our main findings indicate that people perform relatively well in discerning factually accurate information from false statements and that self-perceived media literacy and the need for cognition corresponds with better performance. Stronger pro-Russia views on the war correspond with a lower performance in misinformation detection, whereas anti-Russia attitudes are associated with better evaluations of the statements' truthfulness. We find little cross-country variation in these patterns. As a key implication, we show that discernment between factually accurate information and mis- or disinformation is driven by both accuracy and partisan motivation and that these effects are similar across most different national contexts.

In the current information environment, concerns about the accuracy and truthfulness of information abound (e.g., van Aelst et al., 2017). As citizens are regularly exposed to malign information in the form of mis- and disinformation, as well as accusations of "fake news" (Egelhofer & Lecheler, 2019), it is important to discern factually accurate information from mis- or disinformation (e.g., Luo, Hancock, & Markowitz,

2022). This becomes especially pronounced during global crises, such as the Russian invasion of Ukraine in 2022. Although factually accurate information was in high demand, this global event was quickly surrounded by inaccurate and biased media coverage and partisan accusations of false information (e.g., Wesolowski, 2022). Applied to an international context during the early stages of the war in 2022, this

paper specifically asks to what extent citizens in 19 different countries can detect mis- and disinformation in claims on the Russian invasion of Ukraine, and how this assessment is influenced by both accuracy and partisan motivations corresponding with partisan motivated reasoning.

False information—both in the form of mis- and disinformation—may be dangerous as it can undermine the factual basis of people's political decisions (Rid, 2020), result in misperceptions and knowledge resistance (Strömbäck, Wikforss, Gluer, Lindholm, & Oscarsson, 2022a), harm political-decision making (Zimmermann & Kohring, 2020), or result in confusion and distrust related to different sources of information (Vaccari & Chadwick, 2020). Whether mis- or disinformation entails these consequences may be contingent upon an individuals' ability to accurately distinguish between true and false information, as well as a country's resilience to it (Humprecht, Esser, & van Aelst, 2020). In that regard, extant research has offered mixed results on the extent to which citizens are willing and able to correctly detect mis- and disinformation. Although most research in the US found that people generally do not perform well in detecting false information (e.g., Allcott & Gentzkow, 2017; Erlich & Garner, 2021) found that Ukrainians can generally distinguish between true stories and disinformation, albeit this was explored outside of the context of the invasion. More generally, Bago, Rand & Pennycook (2020) demonstrate that citizens are relatively well-equipped to make accurate judgments about the truthfulness of information. In this paper, however, we argue that the conflict-oriented context of the war, and the abundance of counterfactual narratives spread by different actors may complicate this task. In addition, the information war, which includes pro-Russia propaganda and delegitimizing narratives to attack the opposite camp, was part of the actual conflict—which could also indicate that the discernment becomes a complicated task. Finally, we know little about mis- and disinformation detection in an international setting and across countries with different levels of susceptibility to disinformation (Humprecht et al., 2020). We therefore focus on the discernment between factually accurate information and mis- or disinformation in a "most different" systems comparative endeavor. By including 19 countries varying in geographical proximity to the war, relationships with Ukraine and Russia, political and media systems, levels of polarization, political trust, and media skepticism, we aim to unravel the extent to which the resilience to disinformation is similar or different across national settings (Humprecht et al., 2020).

Arguably, to understand under what conditions citizens accurately identify mis- and disinformation, it is important to look at the directional motivations of citizens to process information (see e.g., Pennycook & Rand, 2019; Glüer & Wikforss, 2022). In line with this, people may believe false information—and thus fail to detect it—when it reassures their prior beliefs or partisan identities (e.g., Schaewitz, Kluck, Klosters, & Kramer, 2020). This process of partisan-motivated reasoning may occur on both the individual and country level: When individuals are prone to partisan motivated reasoning, collectives may also be more likely to judge information in line with partisan attitudes prevailing in each collective (i.e., a given democracy). Specifically, it can be expected that disinformation attacking Russia is less likely to be regarded as deceptive in a Russia-friendly country than in a country in which anti-Russian sentiments prevail.

Next to partisan motivated reasoning, it is also important to look at accuracy motivations. Pennycook, & Rand (2019) conclude that, rather than the motivation to reassure (partisan) identities, a lack of analytical thinking and reasoning may explain beliefs in disinformation. Consequently, boosting analytical thinking could increase the accuracy to detect false claims, and herewith instill resilience to mis- and disinformation. Integrating these different approaches to motivated reasoning, this paper aims to explore the extent to which citizens in different countries correctly identify false and correct statements on the Russian invasion of Ukraine, and how their performance is influenced by both accuracy and partisan motivations. By integrating those aspects this paper offers comprehensive insights into the resilience to mis- and disinformation on both an individual and national level.

The Detection of Mis- and Disinformation and Truth Discernment

Although misinformation can be used as an umbrella-term to capture all forms of information that deviate from objective facts, a distinction between misinformation and the more specific term of disinformation is relevant as disinformation has more systematic and planned consequences than misinformation. Disinformation can specifically be understood as the goal-directed and deliberate creation and/or dissemination of erroneous information (e.g., Bennett & Livingston, 2018; Freelon & Wells, 2020). The aim of disinformation is to deceive recipients, and herewith achieve political, financial, or ideological goals (e.g., Hancock & Bailenson, 2021). As disinformation may encompass more than the dissemination of single inaccurate messages, and as it may reflect planned strategies of malign behavior that aims to reach vulnerable audience segments through media manipulation (e.g., Marwick & Lewis, 2017), its causes and effects may be more severe and disruptive than misinformation (see Matthes et al., 2022).

We refer to both mis- and disinformation in this paper as we look at information that lacks facticity and is *potentially* deceptive. Our findings, thus, aim to be relevant in the context of false information in general (misinformation) and deceptive information disseminated with the intention to deceive (disinformation). As the intentions underlying false information are difficult to identify on the statement level (e.g., Hameleers, 2022), we use mis- and disinformation interchangeably throughout this paper. Using this more inclusive conceptualization also considers that the same false statement can be mis- and disinformation depending on the context or the actors disseminating it. Hence, a social media user may share a false statement driven by the belief that it is accurate, whereas a radical politician may use the same statement to intentionally fuel discontent and cynicism. Thus, although we believe that disinformation is important to consider in the context of the war—which is characterized by the deliberate dissemination of false information by both sides (Erlich & Garner, 2023), we are not able to proof that information was disseminated with the intention to deceive based on the content of the statements alone. Hence, the statements on the war that we use in this study may have been disinformation from the perspective of the source that originally created and disseminated them but may be misinformation for people sharing the content convinced that it represents an accurate worldview. Therefore, in this paper, we focus on the ability of people to distinguish factually inaccurate and potentially

deceptive information (mis- or disinformation) from accurate statements—while considering that these statements may be created with the intention to cause harm or gain politically (disinformation).

Extant research has dealt with the capability of distinguishing mis- and disinformation from factually accurate information (e.g., Allcott & Gentzkow, 2017; Luo, Hancock, & Markowitz, 2022). Although people may detect false information when they engage in more deliberation (e.g., Bodó, 2020), they may initially accept false information driven by the truth-default state of information processing (Levine, 2014). Especially in the context of the Russian invasion of Ukraine, the abundance of partisan narratives, conspiracies, and the lack of clear expert knowledge may have posed constraints on citizens' ability to discern truthful information from mis- and disinformation. There are however at least three reasons why it is important that citizens are able to correctly recognize false and misleading information. First, it decreases the risk that they form misperceptions that underlie knowledge resistance (Glüer & Wikforss, 2022). Second, they may more adequately respond to mis- and disinformation by, for example, ignoring such content, warn people in their environment about falsehoods, seeking additional information, or report it to the platform from which it was shared (Erlich & Garner, 2021). Thereby, the overall impact of mis- and disinformation may be mitigated. Third, being able to separate factually accurate from false information may contribute to the consolidation of trust in factually accurate information (Hameleers, Humprecht, Moller, & Luhring, 2021).

One explanation for falling for false information is offered by the Truth-Default Theory (TDT, see Levine, 2014; see also Luo et al., 2022). According to this theory, people are overall more likely to rate information as truthful than dishonest or inaccurate (Levine, 2014), which may also be referred to as a "truth bias" in information processing (McCornack, Morrison, Paik, Wisner, & Zhu, 2014). Only when suspicion is actively triggered, people may deviate from the default interpretation that information is honest. Among other factors, this truth bias is informed by the relatively low share of deception and dishonesty in people's daily lives, but also using shortcuts and ease of processing (Dechene, Stahl, Hansen, & Wänke, 2010; Brashier & Marsh, 2020). In daily life, the truth-default state may be rational, but the question remains how valid it is in the current information ecology of post-truth politics or factual relativism (van Aelst et al., 2017; Luo et al., 2022; Strömbäck et al., 2022b). In this setting, not only is mis- and disinformation prevalent but also concerns about mis- and disinformation also abound, and accusations of "fake news" are constantly voiced by different actors (Egelhofer & Lecheler, 2019). Similar concerns have been salient in the context of the war too. At the same time, disinformation on highly salient issues is disseminated alongside truthful content, and the—accurate and inaccurate—flagging of disinformation by partisans, fact-checkers, and journalists may leave the impression that disinformation is even more prevalent. Thus, in contrast to a truth bias, the context of mis- and disinformation concerns and accusations may trigger suspicion of deception as well. Supporting this notion, Luo et al. (2022) found support for a deception bias when people were promoted to make veracity judgments on the issues of politics, science, and health. They explain this finding as a potential consequence of heightened concerns about disinformation in society. Specifically, considering that

more than half of all participants in a large-scale comparative survey are found to be "very" or "extremely" worried about biased journalism and misinformation (see Newman, Fletcher, Robertson, Eddy, & Kleis Nielsen, 2022), a shift from a truth to a deception default may be justified.

It remains an open question to what extent the rating of the veracity and honesty of information surrounding the Russian invasion of Ukraine is characterized by a truth or deception bias. Hence, it is difficult to compare research on the discernment between false and factually accurate information in general to the specific setting of the war—a context associated with an information war, propaganda, and an abundance of both state-organized propaganda and disinformation pushed by partisan agendas. As a first aim of this paper, we therefore aim to establish the extent to which news users in 19 countries can correctly distinguish accurate information from mis- and disinformation. We raise the following research question on the performance of mis- and disinformation detection (RQ$_1$): To what extent are news users in 19 countries accurately distinguishing mis- and disinforming statements from factually accurate statements on the war in Ukraine?

The Biased Detection of Mis- and Disinformation

The detection of mis- and disinformation is not free of biases (e.g., Dechene, Stahl, Hansen, & Wänke, 2010; Pennycook & Rand, 2019; Brashier & Marsh, 2020). Hence, the identification of mis- and disinformation may not just be based on citizens' beliefs about the truthfulness of a message but may be partially driven by prior identities, world orientations, attitudes, and knowledge resistance (Glüer & Wikforss, 2022). Such a bias has already been established in research on the effects of disinformation on credibility (e.g., Hameleers, Powell, Van Der Meer, & Bos, 2020) and the acceptance of corrective information (e.g., Thorson, 2016). Conceptually, we can regard the biasing role of prior beliefs and orientations as motivated reasoning, which describes the reliance on cognitive processes and representations to reach conclusions that are desired under certain conditions (Kunda, 1990). People may, for example, selectively process information to reassure their existing beliefs and identities, and thereby use and select new information to confirm beliefs (e.g., Chaiken, 1980; Nickerson, 1998). However, being accurate may also be a desired outcome, which may make people more open to novel information and verification (e.g., Pennycook & Rand, 2019). Against this backdrop, we can generally discern two different motivations that may bias reasoning and, in the context of this paper, the classification of mis- and disinformation: accuracy motivations and directional motivations driven by partisan biases.

Accuracy Motivations

First, people may be motivated to arrive at accurate decisions, even if they run counter to their beliefs. Research on accuracy-motivated reasoning postulates that when people are motivated to arrive at accurate decisions, they spend more cognitive resources and elaboration to reach (political) judgments (see Kunda, 1990, for an overview). Evidence for accuracy-motivated reasoning has repeatedly demonstrated a link between the deep processing of information and arriving at more accurate conclusions. Individuals differ in the

degree to which they enjoy thinking deeply about issues and this has been referred to as the need for cognition (Nir, 2011). Being motivated by the desire to deeply process and understand problems, individuals with a higher need for cognition are more likely to expose themselves to both information that confirms and disconfirms their existing beliefs (Tsfati & Cappella, 2005). Because they are less motivated by defending their existing views and more by arriving at accurate conclusions, we expect that individuals with a higher need for cognition are overall better equipped to discern accurate from false information. More recent evidence for the link between deep processing and false information detection shows that people with higher levels of analytical thinking are less susceptible to disinformation than people who devote less resources to analytical thinking (Pennycook & Rand, 2019). In this study, we therefore expect that motivations to think deeply and get to the bottom of complex issues, as proxied by the need for cognition, might lead people to make fewer attribution errors.

In addition to being motivated to spot falsehoods, individuals also need the skills to achieve this aim. We therefore consider the role of media literacy. Individuals who are skilled at navigating online environments and have experience with dodging potential deception attempts might be better equipped to detect mis- and disinformation in the context of the Russian war in Ukraine. As demonstrated by Jones-Jang, Mortensen, & Liu (2021), people with higher levels of informational literacy—defined as the comprehensive framework for interpreting, finding, evaluating, and applying information, which we can regard as a specific component of media literacy skills—are better able to detect mis- and disinformation than people with lower levels of informational literacy. Considering that higher levels of media literacy correspond to "healthy" levels of skepticism and increased knowledge about the media and biased information (e.g., Tully, Vraga, & Bode, 2020), more media literate citizens should be better at discerning factually accurate and reliable information from mis- and disinformation statements. In addition, previous research shows that individuals who are more confident in their own ability to navigate social media to reach desired goals are less concerned with deception on social media (Hocevar, Flanagin, & Metzger, 2014). This confidence seems warranted; Individuals who have higher confidence in their ability to identify false information have indeed been found to be more successful at detecting false claims (Hopp, 2022). In our study, we rely on a measure of self-perceived media literacy to capture skills that individuals believe to possess that help them spot false information. This measure is inclusive of different information environments and captures to what extent people feel confident that they are generally able to spot false information.

In sum, we expect that the need for cognition motivates individuals to reach more accurate conclusions while a lower desire for processing issues deeply and critically is associated with more susceptibility to mis- and disinformation (e.g., Brashier & Marsh, 2020). When citizens fail to engage in critical thinking or dislike cognitive effort, they may rely more on their existing beliefs and biases—resulting in a lower accuracy to discern true from false statements. In addition, we expect that higher media literacy indicates that individuals possess the necessary skills to safely navigate online information such that they are more resilient to falsehoods. Thus, we expect individuals with higher media literacy to be more successful

at distinguishing between true and false claims about the Russian war. We therefore raise the following hypothesis:

> H1: The higher participants' (a) media literacy and (b) need for cognition, the more likely they are to accurately discern mis- and disinformation statements from factually accurate statements.

Partisan Motivations

In contrast to the motivation to arrive at accurate judgments, people may be motivated by the need to reassure their prior beliefs and identities, even if this reasoning means that they arrive at inaccurate conclusions. This process has been understood as reasoning driven by directional goals, e.g., partisan-biased information processing. Although it could be argued that such reasoning is driven by biases, people are motivated to arrive at conclusions that are rational and justifiable, and that they can support with the evidence available to them (Kunda, 1990; Taber & Lodge, 2006). Hence, they may search their memory for beliefs and associations that can support their desired conclusion. To avoid the discomfort caused by holding inconsistent beliefs, individuals may—consciously or unconsciously—selectively expose themselves to information that confirms their prior beliefs and identities, while avoiding information that challenges their existing views (Festinger, 1962). When confronted with challenging information, people may thus be likely to process (mis)information in a congenial manner consistent with their existing beliefs (Nickerson, 1998; Walter, Cohen, Holbert, & Morag, 2020).

Motivated reasoning has been established in research on the effects of disinformation. More specifically, people rate disinformation as more credible when it reassures their prior beliefs or ideologies (e.g., Hameleers et al., 2020; Schaewitz et al., 2020), and are also less likely to accept corrections when they challenge their disinformed views (e.g., Thorson, 2016). Against this backdrop, we expect that individuals who (consciously or unconsciously) are more motivated by the need to reassure prior beliefs are less likely to accurately distinguish between mis- or disinformation and factually accurate information. We hypothesize:

> H2: The stronger the congruence between participants' beliefs in support or opposition of the war and the partisan framing of mis- or disinformation, the less likely participants are to accurately discern mis- and disinformation statements from factually accurate statements.

Country-Level Differences in Mis- and Disinformation Detection

The susceptibility to disinformation or misinformation differs not only across individuals but also across countries. We expect it to be related to characteristics of a country's political and media system as well as the affectedness of the war. Here, we specifically follow Humprecht et al. (2020) thesis that some countries are more resilient to disinformation than others due to contextual factors that make the dissemination and acceptance of disinformation more or less likely. In line with the resilience framework, we expect that countries characterized by higher levels of polarization and lower press freedom may be most susceptible to mis- and disinformation.

In more polarized countries where (partisan) cleavages are central, the intentional attack on opposed camps with the use of disinformation is a more likely political communication strategy. Furthermore, in more polarized societies such as the US, the prevalence of bi-partisan cleavages may make defensive motivated reasoning mechanisms more salient, which implies that citizens are more likely to make inaccurate judgements on the veracity of information and accept disinformation that reassures their prior beliefs (Thorson, 2016). In short, in polarized information contexts, citizens are likely to be exposed to strongly deviating interpretations of reality and counterfactual narratives, which makes it difficult for them to discern reliable from false and deceptive information (Craft, Ashley, & Maksl, 2017).

We additionally look at the level of press freedom as a country-level indicator of resilience to disinformation (also see Hameleers et al., 2021). We argue that in contexts where press freedom is low, people may have lower trust in the established sources of information that should act independently of the ruling elites. In these conditions of low press freedom, people may become cynical towards journalism and established information sources and rely on alternative media that may disseminate more falsehoods than established media under conditions of high press freedom. Moreover, lower press freedom may indicate that established information channels disseminate disinformation themselves, as their connections and dependence on political institutions may impede honest and neutral coverage based on factual information. Thus, in contexts of low press freedom, it may be particularly difficult for citizens to know which sources they can trust; both the established media and online alternatives may push disinformation narratives and propaganda, which makes it difficult to discern accurate from false and deceptive information.

Applied to the context of the Russian invasion of Ukraine, it can be expected that countries' partisan positions on the war may be relevant for the discernment between factually accurate and mis- or disinformation statements. Hence, in countries in which a pro-Russia perspective is more dominant, mis- and disinformation supporting this perspective may be regarded as more accurate than in countries that support the Ukrainian side (and the other way around). Thus, a country's relative geo-political position and standing on the war may influence the extent to which citizens recognize information as false and potentially misleading.

We finally expect that geographical proximity to the war in Ukraine is related to the accuracy of veracity judgments. For citizens closer to the war, the crisis is likely more salient. The stakes of being well-informed are higher, which may motivate people to critically scrutinize incoming information on the war. In other words, we expect that geographical proximity drives accuracy motivations, indicating that citizens living in areas closer to the war are more likely to arrive at accurate judgments on the veracity of statements on the war.

Based on this resilience argument postulating that different democracies may offer a different context for more or less pervasive mis- and disinformation perceptions, we can arrive at the following hypothesis for the comparative scope of our study:

H3: Citizens in countries with (a) higher levels of polarization, (b) lower press freedom, and (c) lower geographical proximity to the war are less likely to accurately discern mis- and disinformation statements from factually accurate statements.

Methods

Data Collection and Sample

We use original survey data collected between April 20 and May 6, 2022. Fieldwork was kept as short as possible due to the ongoing developments surrounding the war in Ukraine at the time of data collection. The comparative survey received ethical approval from the University of Amsterdam which coordinated the data collection in 19 countries. The total research consortium consisted of 11 European universities. Prior to data collection, the coordinating team pre-registered the project's survey, data collection and general research questions.[1] After creating one template version of the survey in English, it was translated to the different languages and contexts matching the 19 countries by native speakers. This translation was then checked for consistency by the co-authors of this paper.

The collection of data and recruitment of participants was done by Kantar Lightspeed. They invited members of their panel via their own platforms (digital invitations and online surveys). Participants were rewarded with incentives that could be saved up and exchanged for gifts (about one euro/complete). The panel follows a voluntary opt-in logic and statistics on participation are monitored to ensure that panelists are not overburdened or participate in multiple surveys at a time. The company used quota on age, gender (interlocked), and education to ensure a diverse sample that approximated the distribution in each country that has been slightly loosened toward the end to achieve the total number of participants. The total number of valid completes is 19,037. Fifty-three percent of the sample self-identified as female. The mean age of participants completing the survey was 48.96 years (SD = 16.31). For achieved quotas and response rates see data quality Appendix, Tables 1 and 2.

Measuring Performance as Discernment between Accurate and False Statements

The core aim of this paper was to explore the extent to which participants across different regions were able to discern truthful statements on the war from mis- and disinformation. To this end, we relied on an extensive analysis of fact-checked and verified statements on the war by various fact-checking organizations and international media. To offer some examples, we used factcheck.org, politifact.com, as well as investigative journalistic reporting by outlets such as the BBC. We strived for an equal balance between pro- and anti-Russia statements, both for factually accurate and misinformation statements.

The following statements were used: (1) The Russian attack repeatedly hit civilian targets in Ukraine (true); (2) China has publicly condemned the Russian invasion of Ukraine (false); (3) NATO is keeping previous agreements on which countries are allowed to join NATO (true); (4) In Russia-occupied Crimea and in the Donbas, Ukrainians live in repression and fear (true); (5) Russia is committing genocide in Ukraine (false[2]); (6) Ukraine's government is antisemitic and controlled by neo-Nazis (false); (7) Ukraine has repeatedly broken the

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[1] Prior to data collection, the survey was pre-registered here: https://osf.io/pruda/?view_only=188fca5107ca40639936bfa810bbe5d5 Research questions and basic information on the data collection can be found here: https://osf.io/da7bt?view_only=188fca5107ca40639936bfa810bbe5d5

[2] This item was rated as false/not true at the time of data collection—but is arguably difficult to falsify/verify.

ceasefire they previously agreed to (true); (8) The US is funding biological weapons research in Ukraine (false); (9) The Ukrainian Armed Forces are supported by far-right militias (true); and (10) Ukraine signed a law that forbids publishing news only in Russian (true). The perceived accuracy of these statements was measured with the following scale and formulation: 'Could you rate the truthfulness of these statements? (1) Very certain it's false, (2) Somewhat certain it's false, (3) Uncertain whether it's true or false, (4) Somewhat certain it's true, (5) Very certain it's true'. For mean accuracy scores per statement see Supplementary Table A1.

A factor analysis confirmed the two different partisan framings (anti-Russia for statements 1–5, pro-Russia for 6–10). Since the second statement did not load on either factor it was excluded from further analyses (see Supplementary Table A2). By inverting the false items, accuracy scores from 1 (lowest) to 5 (highest) were created to measure participants' performance in distinguishing between false and true statements. To assess partisan-specific accuracy, two sub-scores were formed by incorporating the items representing an anti- or pro-Russian perspective respectively.

Measurement of Accuracy and Partisan Motivations

Partisan motivated reasoning

was assessed by measuring the beliefs about the war [all measured on scales from 1 (completely disagree) to 7 (completely agree)]: (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 their military operation against Ukraine (pro-Russia). A mean score for anti-Russia ($M = 5.34$, $SD = 1.58$) and pro-Russia attitudes ($M = 2.52$, $SD = 1.75$) was formed from the corresponding two original items. We measured participants' attitudes before presenting them with the (mis)information statements.

Accuracy-motivated reasoning

was measured using a proxy of Self-perceived Media Literacy and Need for Cognition.

Self-perceived media literacy

was measured with the following items: (1) I find it easy to distinguish between what is true and what is false information; (2) I can tell when production techniques are used to influence my perception; (3) I spot it when events are made to look more dramatic than they really are; (4) I know where and how to find accurate information ($M = 4.75$, $SD = 1.09$, Cronbach's alpha =.787). The items were based on existing conceptualizations and measurements of self-perceived media literacy (e.g., Vraga, Tully, Kotcher, Smithson, & Broeckelman-Post, 2015) and measured on a scale from 1 (completely disagree) to 7 (completely agree).

Need for cognition

was measured with a condensed scale of the existing need for cognition batteries (see e.g., Edwards, 2009) on a scale from 1 (completely disagree) to 7 (completely agree). The following statements were included: (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 ($M = 4.02$, $SD = 1.19$, Cronbach's alpha =.787).

Country-Level Indicators

Polarization.

As an indicator for the level of polarization across countries, a measurement of elite polarization as described by Gidron, Adams, & Horne (2020) was used. The measure represents the distance between left-right ideology scores of parties within each country. Higher values indicate more ideological polarization in a country. Ideology scores rely on the Comparative Manifesto Project data (Lehmann et al., 2022).

Press freedom.

Scores of press freedom per country were taken from the 2022 World Press Freedom Index as published by Reporters without Borders. It is based on experts' assessments of countries' level of pluralism, media independence, and the safety of journalists. It ranges from 0 to 100, with higher values indicating more freedom (Reporters Without Borders, 2022).

Geographical distance.

Distance in kilometers between each country and Ukraine was taken from the CEPII Gravity database (Conte, Cotterlaz, & Mayer, 2022).

Controls

Controls included age, gender, education, political ideology, media trust, satisfaction with democracy, concerns about the war, and news use by genre as they may play a role in the accuracy of beliefs and the detection of false information (for measurement details see Supplementary, Table A4).

Results

Performance of Accuracy Ratings across Countries

We first asked whether participants could accurately distinguish false statements from factually accurate statements (RQ_1). To test this, we look at accuracy scores in response to false and true statements. Specifically, based on their ratings of true and false statements, participants were assigned an accuracy score that ranged between 1 (least accurate) and 5 (most accurate). With an average score of 3.19, participants were overall more likely to evaluate statements correctly than to arrive at inaccurate judgments. In Romania, performance was the strongest whereas people in Greece, the Czech Republic, and Serbia yielded the lowest accuracy scores (see Figure 1). While there is a gradient, none of the countries present as an outlier or differ tremendously from the overall mean based on the descriptive values.

Looking at the accuracy of the rating of either anti- or pro-Russia statements, participants evaluated anti-Russia statements more accurately than pro-Russia statements in all countries. We do, however, see that in the country with the strongest pro-Russia partisan perspective, Serbia, this difference is the smallest.

Accuracy Motivations: The Role of Self-perceived Media Literacy and Need for Cognition

We hypothesized that the higher participants' (a) self-perceived media literacy and (b) need for cognition (NfC), the more likely they are to accurately discern

mis- and disinformation statements from factually accurate statements (H1).

To assess the relationship between the concepts described above and the ability to accurately discern between true and false statements, linear mixed models with individuals on the first and countries on the second level were applied. Thereby, variances in standard errors due to country differences were accounted for. The mixed models show that overall, only higher levels of NfC were associated with higher accuracy in discerning true from false statements (Table 1, Model 1a). When separating anti- and pro-Russia statement-related accuracy, we find a positive relationship with self-perceived media literacy but none with the need

for cognition for anti-Russia-specific accuracy. Looking at pro-Russia specific accuracy, however, it is the other way around with the need for cognition being positively correlated with accuracy but not self-perceived media literacy (Table 1, Models 1b and 1c). Thus, we find some support for both H1a and H1b.

Partisan Motivations: The Role of Attitudes Toward the War

We also expected that partisan-motivated reasoning plays a central role in the accuracy of truth discernment. Specifically, we hypothesized that the stronger the congruence between beliefs on the war and the partisan framing of mis- or
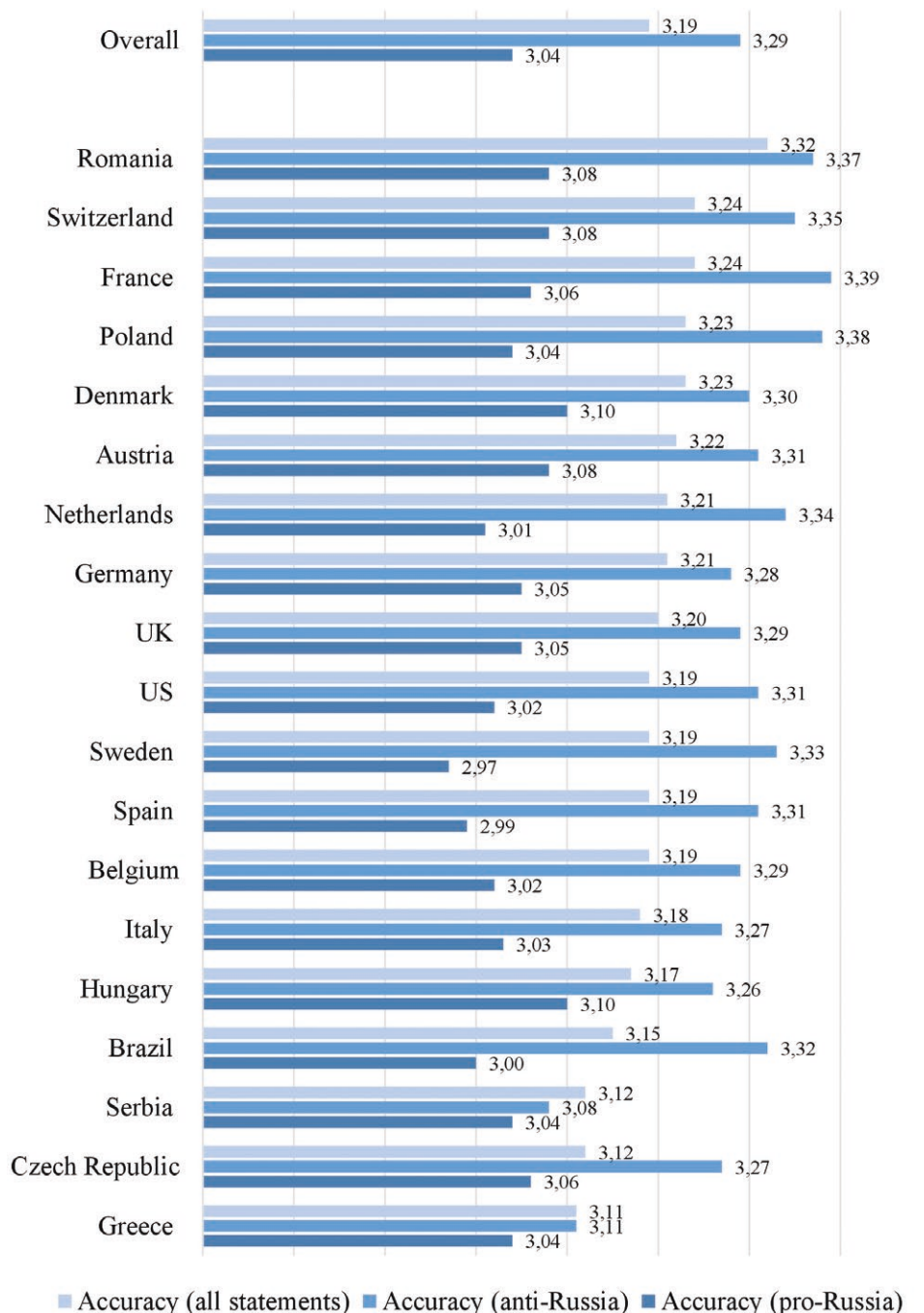

Figure 1: Mean accuracy scores on a scale from 1 to 5 overall and by country, N= 19,037.

Table 1. *Linear Mixed-Effects Model, Accuracy as Dependent Variable in Model 1a, Anti-Russia Specific Accuracy in Model 1b and Pro-Russia Specific Accuracy in Model 1c.*

	Model 1a: Accuracy Estimate (SE)	Model 1b: Accuracy (anti-Russia) Estimate (SE)	Model 1c: Accuracy (pro-Russia) Estimate (SE)
Fixed effects			
Intercept	2.917 (.023)***	2.567 (.037)***	3.089 (.031)***
Need for cognition	.005 (.002)*	.005 (.003)	.010 (.003)***
Self-perceived media literacy	.017 (.002)***	.024 (.003)***	.006 (.003)*
War attitudes anti-Russia	.014 (.002)***	.055 (.003)***	−.010 (.002)***
War attitudes pro-Russia	−.023 (.001)***	−.036 (.002)***	−.003 (.002)
Age	.001 (.000)***	.001 (.000)***	.000 (.000)*
Gender	−.058 (.004)***	.017 (.007)**	−.067 (.006)***
Education	.027 (.003)***	.002 (.005)	.029 (.005)***
Ideology	−.001 (.001)	.002 (.001)	−.002 (0.001)*
Media trust	.001 (.002)	.024 (.003)***	−.004 (0.003)
Satisfaction with democracy	.009 (.001)***	.011 (.002)***	.009 (0.002)***
Concerns about the war	.022 (.003)***	.027 (.005)***	.003 (0.004)
News use			
TV	.005 (.001)***	.007 (.002)***	.000 (.002)
Radio	−.003 (.001)*	.000 (.002)	−.004 (.002)*
Newspapers	.010 (.001)***	.006 (.002)**	.010 (.002)***
News aggregators	−.002 (.001)	.001 (.002)	−.003 (.002)*
Social media platforms	−.001 (.001)	.005 (.002)*	−.001 (.002)
Messaging services	−.011 (.001)***	−.008 (.002)***	−.010 (.002)***
Random effect			
Intercept (Country)	.001 (*SD* =.028)	.002 (*SD* =.049)	.001 (*SD* =.033)
Marg. R^2 (fixed effects)	.111	.121	.022
Cond. R^2 (fixed and random effects)	.120	.132	.029

N = 19,037;
***$p < .001$
**$p < .01$
*$p < .05$

disinformation, the less likely participants are to accurately discern false statements from factually accurate statements (H2). To distinguish between anti- and pro-Russia framed statements, the mixed model was applied to the accuracy scores for anti-Russia (Table 1, Model 1b) and pro-Russia statements (Table 1, Model 1c) separately.

For the statements representing anti-Russian sentiments, participants with stronger anti-Russia attitudes perform better in discerning accurate statements from misinformation. This finding means that a more critical view of the Russian invasion goes hand in hand with a better judgment of whether statements that represent a critical view of Russia are true. On the other hand, having pro-Russia war attitudes is related to less accuracy when discerning true from false anti-Russia framed statements (Table 1, Model 1b).

Having more extreme opinions on the war in either direction is associated with less ability to detect false and correct pro-Russian statements (Table 1, Model 1c). Stronger anti-Russia attitudes, however, are related to a better accuracy for statements in line with an anti-Russia perspective and a lower accuracy for incongruent statements. This finding is not in line with H2, which postulated that performance is better for incongruent than congruent statements.

Country-Level Differences in the Accuracy of Misinformation Ratings

We finally expected that citizens in countries with (a) higher levels of polarization, (b) lower press freedom, and (c) lower geographical proximity to the war are less likely to accurately discern misinformation statements from factually accurate statements (H3). To test this hypothesis, three indicators on a country level were considered. For each country, the score of political polarization (Table 2, Model 2a), press freedom (Table 2, Model 2b) and distance to the location of the war in Ukraine (Table 2, Model 2c) were included in the model. However, none of the three provide evidence for an influence on individual-level accuracy (Table 2). In sum, our findings offer no support for the resilience hypothesis postulating that countries with higher levels of polarization, lower levels of press freedom, or shorter distance to the war are performing less well on discerning misinformation from factually accurate statements.

Discussion

Especially in crisis contexts, such as the Russian invasion of Ukraine, it can be difficult for citizens of discerning false from

Table 2. *Linear Mixed-Effects Model, Accuracy as Dependent Variable, Polarization (a), Press Freedom (b), And Geographical Distance (c) Included Stepwise.*

	Model 2a Estimate (SE) N = 18,036 [a]	Model 2b Estimate (SE) N = 19,037	Model 2c Estimate (SE) N = 19,037
Fixed effects			
Intercept	2.916 (.029)***	2.574 (.096)***	3.098 (0.032)***
Country-level factors			
Polarization	.001 (.001)	—	—
Press freedom	-	.000 (.001)	.000 (.000)
Geographical distance	–	–	–
Need for cognition	.004 (.002)*	.005 (.003)*	.010 (0.003)***
Self-perceived media literacy	.018 (.002)***	.024 (.003)***	.006 (0.003)*
War attitudes anti-Russia	.013 (.002)***	.055 (.003)***	–.010 (.002)***
War attitudes pro-Russia	–.025 (.001)***	–.036 (.002)***	–.003 (.002)
Age	.001 (.000)***	.001 (.000)***	.000 (.000)*
Gender	–.060 (.004)***	.017 (.007)**	–.067 (.006)***
Education	.028 (.004)***	.002 (.005)	.029 (.005)***
Ideology	–.001 (.000)	.002 (.001)	–.002 (.001)
Media trust	.002 (.002)	.024 (.003)***	–.004 (.003)
Satisfaction with democracy	.009 (.001)***	.011 (.002)***	.009 (.002)***
Concerns about the war	.022 (.003)***	.027 (.005)***	.002 (.004)
News use			
TV	.005 (.001)***	.007 (.002)***	.000 (.002)
Radio	–.003 (.001)*	–.003 (.002)*	–.004 (.002)*
Newspapers	.010 (.001)***	.010 (.002)***	.010 (.002)***
News aggregators	–.002 (.001)	.001 (.002)	–.003 (.002)*
Social media platforms	.000 (.001)	.005 (.002)*	–.001 (.002)
Messaging services	–.012 (.001)***	–.008 (.002)***	–.010 (.002)***
Random effect			
Intercept (country)	.001 (SD =.028)	.003 (SD =.050)	.001 (SD =.032)
Marg. R^2 (fixed effects)	.117	.121	.023
Cond. R^2 (fixed and random effects)	.126	.132	.030

***$p < .001$
**$p < .01$
*$p < .05$
[a]Brazil is not part of the data used to calculate polarization and therefore excluded.

reliable and accurate information. In contemporary complex digital media ecologies, counterfactual narratives, conspiracy theories and partisan disinformation on the war were spreading at a fast pace, accompanied by accusations of fake news targeted at the opposed camp (e.g., Wesolowski, 2022). Considering that news users are generally not performing well in the task to discern truthful information from mis- and disinformation (e.g., Luo et al., 2022), this paper explored the extent to which citizens in 19 different countries were able to discern accuracy from false partisan information on the war. As citizens' ability to accurately detect disinformation whilst keeping trust in factually accurate information is an important indicator of society's resilience or vulnerability to disinformation (e.g., Erlich & Garner, 2021; Strömbäck, Wikforss, Gluer, Lindholm, & Oscarsson, 2022a), it is important to explore people's performance in correctly separating factually accurate information from mis- and disinformation.

Our main findings indicate that citizens are performing relatively well in discerning truthful information from mis- and disinformation on the war in Ukraine. This finding is not in line with extant literature indicating that citizens are generally bad at discerning misinformation from factually accurate information (see e.g., Luo et al., 2022). This can be attributed to the high information demand and salience of media coverage of the war across the globe. We can also interpret this finding within the framework of the Truth-Default-Theory (Levine, 2014). The TDT postulates that people are biased toward the truth unless suspicion is actively triggered. The perception of malicious intentions, or logical inconsistencies of information with external facts or within statements, can be considered as potential triggers of suspicion (Clare & Levine, 2019). Arguably, the high salience of the war in public opinion and the media at the time of data collection could be regarded as a context in which suspicion is easily triggered. Fact-checkers, journalists, and politicians constantly referred to debunked claims on the war and warned people about information manipulation—especially from the Russian side of the conflict. This discourse surrounding information on the war may have acted as a trigger that motivated people to be sensitive to deception when rating information on the war.

Our findings extend theories on deception detection and the truth default (Levine, 2014) by demonstrating the relevance of the uncertainty and politicization of the information context. Our study was conducted amidst a context where information was disputed, uncertain, or subject to actual disinformation and propaganda. In line with previous research, information on wars is likely to be subjected to propaganda and biased reporting, even from mainstream media and traditional journalistic outlets (e.g., Hallin, 198; Lewandowsky, Stritzke, Freund, Oberauer, & Krueger, 2013). This setting is likely to make people more aware of biased reporting, contributing to more sensitivity to deception. Given that mis- and disinformation on the war may be more prominent, it is important to consider the extent to which perceived mis- and disinformation is proportionate to the scope of the threat across different issues (e.g., Knuutila, Neudert, & Howard, 2022). As a theoretical implication, we argue that the functionality and accuracy of a truth- versus deception-default attitude of the public should be considered in the context of information supply: Contexts of high media bias, uncertainty, and political disinformation such as the Russian war in Ukraine may be characterized more by a deception default.

Our findings indicate that this trigger did not disproportionate harm the classification of accurate information as false. Although "fake news" and information manipulation on the war were salient themes in news coverage, which could result in a deception bias in information processing (Burgoon, 2015), individuals did not exhibit a clear bias to label information as false, regardless of its truthfulness. Thus, as a positive implication of our findings, we show that citizens across different countries were overall able to discern factually accurate information from misinformation.

Our findings further suggest that self-perceived media literacy may enhance resilience to mis- and disinformation. The more people perceive themselves to be literate and the more they have an affinity for cognitively effortful activities, the better able they are to discern false statements on the war from factually accurate headlines. We can overall conclude that more thoughtful processing and the motivation to engage in verification and elaboration enhances resilience to misinformation. This finding is in line with Pennycook and Rand's (2019) conclusion that the lack of analytical thinking may play an important role in the vulnerability to disinformation, whereas partisan motivated or defensive reasoning could play a less central role than often assumed.

Next to accuracy motivations, partisan-motivated reasoning played a central role in the discernment between misinformation and accurate statements on the war, albeit not consistently in the hypothesized direction. Hence, although we expected that participants would perform best in discerning factually accurate statements from misinformation when the statements were incongruent with their beliefs, we found that, at least when we look at anti-Russia statements, higher levels of congruence increased people's performance. For pro-Russia statements, in contrast, people with both stronger anti- and pro-Russia attitudes were less accurate in discerning truth from misinformation statements. Our findings are generally not in line with the theory of motivated reasoning and cognitive dissonance (e.g., Taber & Lodge, 2006). This theory postulates that people are more likely to uncritically accept information that is in line with their beliefs, whereas they show a tendency to counter-argue or reject discrepant views (e.g., Strickland, Taber, & Lodge, 2011). One possible explanation may be the specific nature of anti-Russia versus pro-Russia attitudes on the war. We found that, overall, people with stronger pro-Russia attitudes are less likely to accurately discern truthful statements from misinformation than people with stronger anti-Russia attitudes. In established media coverage, the anti-Russia perspective gets much more attention, and most empirical evidence and conventional expert knowledge disseminated across the countries in our study has an anti-Russia framing. Alternative and hyper-partisan media, in contrast, are more likely to spread disinformation, conspiracies, and counter-epistemic narratives on the war. Therefore, the finding that people with pro-Russia attitudes are less likely to discern between factually accurate information and mis- and disinformation could be explained by the different truth claims they select.

Although we expected that people's ability and motivation to discern truthful information from misinformation would differ across countries, we did not find support for country-level differences based on polarization, press freedom, or geographical proximity to the war. This finding is not in line with the resilience argument, which states that countries with higher levels of polarization and lower levels of press freedom would be most susceptible to disinformation (e.g., Humprecht et al., 2020). The sample perhaps does not offer sufficient variance in the three indices we used, especially within the European Union which makes up for most of the 19 countries. We can also explain the unexpected findings in light of the extremely high global salience of the war at the time of data collection. Hence, in all countries included in our study, the event was covered extensively in established media and on social media channels—which often operated on a global scale. Therefore, the same misinformation and factually accurate statements may have reached citizens across countries, who also mostly shared a pro-Ukraine partisan position.

Our study comes with a few limitations. First, we have only used a limited selection of claims on the war. Although some were worded more extremely and close to conspiracist reasoning, other statements were less clearly false or verifiable. These statements were selected from different sources and chosen for their variety and different perspectives, but the final selection of claims can have an impact on the findings. The factor analysis conducted to see whether the statements were in fact two different factors for pro- or anti-Russia respectively also assumes measurement invariance across countries that cannot be insured. We therefore propose future research include a more diverse and a larger number of true and false statements.

Further, although we took measures to interlock quotas on age, education, and gender, certain segments of some country's populations, such as older citizens, are underrepresented in our sample due to their online nature and drawing from access panels. We also stress that the indicators used for analytical thinking—self-perceived media literacy and the need for cognition—are both susceptible to overconfidence biases. We suggest future research rely on measures that are less susceptible to self-reported biases, such as actual information literacy (see Jones-Jang, Mortensen, & Liu, 2021) and scores on cognitive reflection tests (see Pennycook & Rand, 2019).

Conclusion

We believe that our findings have important theoretical implications. First, we show how looking at the discernment between mis- or disinformation and factually accurate information may

be a meaningful indicator of performance in detecting misinformation, and people's actual resilience to false information. Hence, to adequately assess the effects of mis- and disinformation on society, we should focus on the accurate detection of deception as well as the adequate application of the truth-default. Reasoned from the discernment approach, the role of motivated reasoning in the detection of mis- and disinformation becomes evident. Although partisan misinformation can be more persuasive and more difficult to correct when it aligns with people's views (Thorson, 2016), these confirmation biases may operate in a different way when we look at the discernment between factually accurate information and misinformation. In this setting, especially in the context of a salient crisis surrounded by the threat of misinformation as both a label and genre, it is important to integrate the truth and deception biases of news users (e.g., Levine, 2014). In addition, and supporting Pennycook and Rand's (2019) argument that analytical thinking plays a role in the detection of false information, our findings indicate the importance of a holistic account of motivated reasoning—distinguishing between accuracy and defensive motivations—in understanding people's ability to discern between misinformation and factually accurate information. Despite its limitations, our large-scale survey study offers important insights on citizens' resilience to dis- and misinformation – both in terms of its delegitimizing effect on the truth and the promotion of partisan counterfactual narratives—in the face of a war with severe geopolitical ramifications.

Biographical Notes

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Supplementary Data

Supplementary data are available at *International Journal of Public Opinion Research* online.

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